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★ MAY 13 1905 ★  
U. S. Department of Agriculture.

# **DESCRIPTIVE CATALOG of VEGETABLES**

A manual designed to more fully acquaint  
the dealer and his customers with the many  
varieties of vegetables offered for sale today.

**MICHAEL-LEONARD SEED CO.**  
( THE SIOUX CITY SEED CO. )

**SIOUX CITY, IOWA**

**CHICAGO, ILL.**

The Michael-Leonard Seed Company has general offices at Sioux City, Iowa and Chicago, Illinois, and maintains branches at the following locations:

Normal, Ill.	Ottumwa, Ia.
Des Plaines, Ill.	Ames, Ia.
Columbus, Wis.	Billings, Mont.
Carroll, Ia.	Ontario, Ore.
Boone, Ia.	Moscow, Idaho.
Pella, Ia.	Ashton, Idaho.
Algona, Ia.	Mankato, Minn.
Muscatine, Ia.	Sioux Falls, S. Dak.
Iowa City, Ia.	Norfolk, Neb.
Red Oak, Ia.	Grand Island, Neb.

A corporation is not good because it is large and old. It may very easily be stagnant in old age, ready to die, living on the effort of its youth. It may be too set in its ways, too conservative to change with the times, too reactionary to see the advantages of new ways of doing things.

Likewise, a corporation is not good because it is young and virile. It may lack the tempering effect of years of experience, impulsive, unstable to the point of peril to its customers.

But unlike men, corporations are not confined to one body, to one mind, to one set of ideas. When members of the company retire, others who have seen the effect of the years of business, who have worked with it, who have heard the counsel of the makers of its destiny take the key positions, and the organization moves on. If that new group has learned well, if the older members have been wise teachers, if the responsibility can be shifted with confidence from one man to another, then the company can live.

The Michael-Leonard Seed Company has been extremely fortunate in this same situation. Since 1884 the Sioux City Seed Company and the Leonard Seed Company have run separate courses, gaining in experience, in wisdom, in reputation. Gradually expansion was made, new positions filled from within the organizations, old positions carefully refilled with trained men whose hearts were in the spirit of the business.

Now the two companies are united under a single name, the two organizations blended into one. New blood, new ideas, fresh enthusiasm are added to the wealth of experience that accumulates in half a century. With the spirit of youth tempered by years of experience, the Michael-Leonard Seed Company again greets its customers. Look for the same friendly cooperation you have always received; look for a steady throb of healthy progressiveness; look for the same people you have known for years, and have learned to trust.

MICHAEL-LEONARD SEED COMPANY



## ARTICHOKE

### LARGE GREEN GLOBE

Used for home garden planting and shipping; heads large, slightly elongated; scales thick at base. Quite different from Jerusalem Artichoke, which is grown for its tuberous root.

## ASPARAGUS SEED

### PALMETTO

One of the earliest; stalks dark green with pointed tips.

### MARY WASHINGTON

The latest development of rust resistance asparagus; larger than the original Washington, with very tight tips of fine quality.

## BEANS — BUSH GREEN PODDED VARIETIES

**CULTURE.** Beans are easily frost killed, so plant them at Corn planting time, on light, dry land. Cold, wet weather will rot the seed in the ground and fresh manure causes a rank growth of vine with a lack of pods. Hand cultivated beans can be drilled in poor soil as close as 18 inches, but in rich soil with horse cultivation, 30 inches is required. Drill 6 beans to the foot and cover one inch deep, or plant 4 beans to the hill, 18 by 24 inches apart. Two pounds of seed should plant 200 feet and 60 pounds an acre. Plant every other week for a succession up until August first in the latitude of Chicago. Shallow cultivation only should be given at all times and do not cultivate when the plant is in bloom as the plant will drop its blossoms; never cultivate when wet, as it causes rust. Pick beans before the bulge of seed appears and pick them clean to continue the plants bearing. Numbers of days are from planting to first picking.

### BOUNTIFUL

50 Days

Vine light green, 18 inch upright, strong growing bush. Stringless at all stages, somewhat inclined to be fibrous as pod ages. Very fine flavor. Exceptional cropper. Pod light green, average 7 inches long by  $\frac{1}{2}$  inch wide, thin and flat. Very meaty. Excellent market garden and shipping variety; also good for home garden. Seed pale yellow, medium large, kidney shape.

### BROAD WINDSOR, FAVA OR HORSE BEAN

70 Days

Plants dark green, 20 to 24 inches, tree type of growth with scant foliage. Pod shiny dark green, 4 inches long, thick and broad. Used as a green shell. Seed large, flat, odd shaped, dark yellowish color with a black eye.

### BURPEE'S STRINGLESS GREEN POD

50 Days

Plants large, very productive. Pods curved, round,  $5\frac{1}{2}$  to 6 inches long; medium green, meaty, stringless and of excellent quality. One of the best varieties for canning cut beans and very popular with home gardeners. Seeds dark brown.

### DIXIE WHITE

Vines light green, 18 inches high. Pods light green, 4 inches long, round and straight; stringless when young. A most wonderful yielder. Excellent as a dry shell bean; flavor equal or better than Navy.

### FORDHOOK FAVORITE

54 Days

Similar in character of plant and pod to Burpee's Stringless Green pod. Plant sturdy and moderately prolific. Pods  $5\frac{1}{2}$  inches long, round, meaty without fiber and strictly stringless; of fine quality. Seeds oval, solid ivory white.

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**BEANS — Bush Green Podded Varieties — Continued****FULL MEASURE****54 Days**

An excellent market gardeners' and canners' bean. Plants hardy, branching freely and bearing a good crop of pods. Pods 6 to 6½ inches; round, straight, deep green and strictly stringless. Seeds brown mottled with yellow.

**GIANT STRINGLESS GREEN POD****53 Days**

An excellent bean for the market gardener and shipper; and widely used for canning. Very heavy, stocky vine. Pods round, 6 to 6½ inches long, of exceptionally fine quality, stringless throughout entire growth. Seed deep yellow.

**GODDARD OR BOSTON FAVORITE****60 Days**

Vine medium dark, 16 inch bush. Pods medium light green, splashed with bright red, straight and flat. Used largely in New England states. Seed tan, red speckled.

**GREAT NORTHERN OR LARGE WHITE NAVY****110 Days**

Vine a medium dark color, 14 to 18 inches, rank, heavy growth with short tendrils. Pods medium dark, 3 inches long, flat and straight. Very heavy cropper. Grown mostly in the northwestern states as a commercial white dry bean. Larger, heavier growth and a heavier producer than the old Michigan Navy, but is not equal in quality. Seed white, medium small.

**HORTICULTURAL, DWARF****54 Days**

Vine very productive, compact, upright, with large leaves. Pods 4 to 5 inches long, wide, thick, stringless with splashes of bright red on a yellowish ground. Seed large, oval, plump and nearly covered with splashes of bright red.

**HORTICULTURAL, FRENCH****63 Days**

Vine 18 inches, medium dark green, with short ragged runners. Pods medium light green, splashed with red as pod ages, 4 to 5 inches, wide, thick, tough and stringy. Seed cream with bright red splashes, large, thick, oval.

**KIDNEY, DARK RED MAHOGANY****96 Days**

Vine dark colored, strong growing, upright 18-inch bush with a rather scant growth of large leaves. Pods dark, 5 inches long, wide, flat, straight, stringy, fibrous and unfit for snap use. Used as a dry shell bean in the commercial market. Seed dark red, medium large, flat, kidney shaped.

**KIDNEY, IMPROVED WHITE****100 Days**

Vine dark, 18 inches, strong growing bush with a rather scant growth of large leaves. Pods dark, 4 inches, wide, flat, straight, stringy and fibrous at all stages. Is not a snap bean type. Used as a dry shell bean. Seed pure white, medium large, kidney shaped.

**LANDRETH'S STRINGLESS GREEN POD****52 Days**

An individual plant selection out of Burpee's Stringless Green Pod. Vine is more erect with darker foliage and larger, slimmer pods which stay greener than the original type. Pods 6 to 8 inches long, round, slightly curved and absolutely stringless.

**LONGFELLOW****55 Days**

Vine medium dark, 16 inch, upright, strong growing bush. Pods dark green, 5 to 6 inches long, round, slim, pointed, no fiber, develops string at a very early stage. Well flavored. Holds well for long-distance shipping. Is very susceptible to bacterial blight. Seed reddish brown mottled with buff.



## BEANS — Bush Green Podded Varieties — Continued

### LOWE'S CHAMPION

54 Days

Pods about 5 inches long, very flat; light green in color with more or less string and of medium quality. Seed dark red.

### MARROW, LARGE WHITE

100 Days

Vine medium dark, 16 to 18 inches, heavy, strong growing, short runner type. Pods medium dark, 4 to 5 inches long, wide, flat, straight, stringy and fibrous. Used as a dry shell commercial bean. Seed pure white, medium large, rounded oval.

### NAVY

100 Days

Vine medium dark, 16 to 18 inches, strong growing, short runner type. Pods light green, 3 inches long, flat, straight, medium broad. Dry shell commercial bean. Above is description of the original Michigan Pea bean. There are a great many types on the market of the Navy family, of them all the Robust is fast displacing all others due to its yielding ability and the fact that it is nearly 100% resistant to mosaic, and shows strong resistance to bacterial blight and anthracnose. The Robust is a stronger growing, heavier yielding, slightly larger seeded and ten days later than the true Navy. Seed pure white, small, oval.

### REFUGEE OR 1000 TO 1

68 Days

Vine is medium light, 14-inch bush with a spreading habit of growth. Small, pointed leaves; thick growth of leaves. Pods medium light, 5 inches long, round, curved, very meaty, crisp, well flavored but has a most decided string at all stages. This is the original Refugee and is now replaced by the Stringless type. Seed purple with buff spots.

### REFUGEE, STRINGLESS

68 Days

A stringless type of the above with a slightly lighter pod and a deeper purple colored seed, otherwise is an equal to the above in every way.

### MOSAIC RESISTANT STRINGLESS REFUGEE

64 Days

Resistant to common bean mosaic. Plant of Refugee type and strongly prolific. Pods 5½ inches long, straight, round, silver green, stringless, without fiber; seed purple-blue splashed with buff. Excellent canners' bean.

### TENDERGREEN

53 Days

Vine medium light, 18-inch bush, upright with good leaf growth. Pods light green, 6 inch average, straight, round, crisp, meaty, stringless and without fiber. Very fine flavor. Seed brown mottled, splashed with buff.

### TENNESSEE GREEN POD OR BROWN BUNCH

52 Days

Vine dark, 12 inches, lazy sprawling growth, large leaves. Pods medium light, 6 to 8 inches, curved, wide, flat, very thin when fit, become knobby with deep indentures between seeds as pod ages; crisp, tender, stringless when young, developing string later. Seed dark brown, medium large, wide, flat.

### BLACK VALENTINE

50 Days

A good variety for early planting as it is extremely hardy and will withstand early frost; an excellent shipper. Pods dark green, of handsome appearance, 5 to 6 inches, stringy and tough. Seed oblong, jet black.

### STRINGLESS BLACK VALENTINE

50 Days

This green pod beans is typically Black Valentine. Has all the sturdy characteristics which popularized Black Valentine as a producer and shipper; has long, practically straight oval pods of good color and texture and is completely stringless. Seed oval, black.



**BEANS — Bush Green Podded Varieties — Continued****RED VALENTINE**

54 Days

Plant medium size, erect, very productive. Pods 4 to 5 inches long, medium green, round, curved, slim with crease in back; very fleshy, crisp and tender. Seed purplish red, splashed with pale buff.

**STRINGLESS RED VALENTINE**

A stringless strain of Red Valentine similar in other respects to the regular stock of Red Valentine.

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**BEANS — BUSH WAX PODDED VARIETIES****BLACK WAX, PENCIL POD**

53 Days

Plant large, vigorous, upright. Pods golden yellow, 5 to 6 inches long, round, curved; very meaty, stringless and of excellent flavor. Seed black.

**CURRIE'S RUST PROOF WAX**

48 Days

Plant dwarf, erect, compact, medium green. Pods flat, 5½ to 6 inches long, waxy yellow, attractive; with strong string, and fibrous, of poor quality. Seed plump, flat, oblong, purplish black.

**DAVIS WHITE WAX**

52 Days

Plant medium large. Pods 6 to 6½ inches, thick-flat, light yellow, straight, uniform and attractive; stringless, fibrous, of fair quality. Seed white, kidney shaped.

**GOLDEN WAX, IMPROVED**

50 Days

Vine medium light, 14-inch, strong, sturdy bush with a medium heavy leaf growth. Pods a fine deep waxy yellow color, four inches, straight, wide, thick, flat, stringless, considerable fiber as pod ages, very well flavored. Seed white splashed with mottled red around eye and end of seed.

**TOP NOTCH GOLDEN WAX**

51 Days

Pods are an inch longer than old type Improved Golden Wax. Seed is similar in size, but more white and smaller eye.

**GOLDEN EYE WAX**

50 Days

Prolific, hardy, nearly rust proof. Plant medium erect, moderately productive. Pods handsome in appearance, 5 to 5½ inches, straight, flat, stringy, fibrous; of poor quality. Seed oval, solid white with brownish ring around eye.

**HODSON WAX**

68 Days

Extremely vigorous, very hardy and productive, though rather late. Noted for its very large, flat, gently curved, attractive wax pods; rather fibrous and stringy. Seed red, speckled with white.

**IMPROVED STRINGLESS KIDNEY WAX**

53 Days

Resembling Wardwell's Kidney Wax but pod is longer and thicker, not so broad; fairly productive and of high quality; stringless, fiberless, very fleshy and brittle. Pods about 6 inches long and of an attractive, clear yellow color. Seed white with black eye, kidney shaped.

**ROUND PODDED KIDNEY WAX OR BRITTLE WAX**

52 Days

Plants are of strong growth, spreading and very productive. The leaves are large, broad and roughened. Pods are round, 5½ inches long, slightly curved, light yellow, waxlike, stringless and of the very best quality. Seed white with black eye, kidney shaped.

## BEANS — Bush Wax Podded Varieties — Continued

### WARDWELL'S KIDNEY WAX

50 Days

Hardy and productive. Pods  $5\frac{1}{2}$  to 6 inches long, broad, thick, flat and of a delicate waxy yellow. Of excellent quality and with no string in the early growth. Seed white with dark red eye and splashing at end.

### REFUGEE WAX

54 Days

Plant sprawling bush, with many runner-like branches, very productive. Pods round, curved, light yellow faintly splashed with purple; brittle, stringless, fine grained and of excellent quality. Seed cylindrical, bluish black, splashed with pale buff.

### ROYAL PURPLE WAX

48 Days

Vine medium dark, 16-inch thick, heavy bush. Pods bright wax,  $4\frac{1}{2}$  inches long, round, curved, stringless at all stages without fiber. Seed light purple, speckled with buff.

### SIOUX STRINGLESS WAX

52 Days

Vine of strong, upright growth. Pods 6 inches long, of rich cream-yellow color, are meaty, crisp and absolutely stringless. Seed yellowish tan, light speckled.

### SURE CROP OR BOUNTIFUL WAX

53 Days

A vigorous growing, very productive variety, similar in general appearance of plant and seed to Currie's Rust Proof Wax; the pods, however, are more fleshy, of decidedly better quality and are stringless at practically all stages of growth. Pods about 6 inches long, nearly round, attractive in color and remain a long time in condition for snaps. Seed jet black.

### UNRIVALLED WAX

52 Days

Pods 5 to  $5\frac{1}{2}$  inches long, rather narrow, either perfectly straight or slightly curved, somewhat flattened but fleshy. The pods show their clear yellow color at an early stage and while having a trace of strings are quite fiberless. Plant large, vigorous and nearly disease resistant. Seed distinctly small, flat, kidney shaped, ochre-brown in color.

### WEBBER WAX OR CRACKER JACK WAX

50 Days

Vine medium dark, 16 inch, strong growing bush with a fair leaf development. Pod good rich wax color, 5 to 6 inches long, flat, slightly curved, medium broad, meaty and well flavored; stringless and without fiber when small but develops fiber and becomes coarse with a slight string as it ages. Seed cream-yellow, medium small.

## BEANS — BUSH LIMA VARIETIES

**CULTURE.** Lima Beans require even more heat than other Beans. They should not be planted until the ground is thoroughly warmed. Bush Limas should be sown on good garden soil in 2 to 3 ft. rows, 3 to 6 inches apart, eye down, cover 1 inch if planted in light soils, less in heavy soil. One pound will plant 50 to 60 feet. Pole Limas are more tender than the Bush Limas. Set 6 ft. poles, 4 feet each way and drop 4 to 6 beans, eye downward around each pole, thinning to 3 plants when up.

### BURPEE'S BUSH LIMA

78 Days

Plants 18 to 20 inches high, very productive. Pods 4 to  $4\frac{1}{2}$  inches long, containing three to four beans, which are flat and wide and of excellent quality.

### BURPEE'S IMPROVED BUSH LIMA

75 Days

Similar to Burpee's Bush Lima, but slightly earlier and longer podded. Plant large, erect, vigorous, very productive; pods contain four to five seeds. Dry beans, large, plump, flat-oval, surface somewhat wrinkled, color white with greenish tinge.



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**BEANS — BUSH LIMA VARIETIES — Continued****DREER'S BUSH LIMA** 80 Days

The true bush form of the chubby Dreer's or Potato Lima. The pods are heavy and thick. It is quite productive and of excellent quality.

**FORDHOOK BUSH LIMA** 75 Days

Vines strong, erect and true bush lima growth. Foliage heavy and very dark green in color. The stalks that produce the blossom are thrown out from the lateral and main stalks. Pods are large, thick, containing three to five beans. The most popular market gardeners' lima bean.

**HENDERSON'S BUSH LIMA OR DWARF SIEVA** 66 Days

Our stock is the true Henderson's Bush Lima and not the common Baby Lima. Plants bushy, very productive. Pods flat, 3 inches long, containing three to four seeds. Green shelled beans small, flat and of excellent quality.

**JACKSON WONDER OR CALICO LIMA** 66 Days

Vine dark, 12 inch, thick bush with heavy leaf growth. Pods dark,  $\frac{3}{4} \times 3$  inches, flat, medium thin. In every way is like the Henderson's Bush except in color of seed. Seed light buff, purple speckled.

**McCREA LIMA** 72 Days

Vine dark, thick, upright growth, fairly heavy. Pods dark, thick, flat, slightly curved, containing three to five seeds. Green shelled beans are thick, medium small, green tinted, potato type, well flavored. Seed dry, medium small, cream-white, thick.

**WONDER BUSH LIMA** 75 Days

An improvement on the original type of Burpee's Bush Lima. The beans are of flat shape and of good flavor.

**WOOD'S PROLIFIC LIMA** 70 Days

Slightly larger seed and pod on a slightly larger and slightly later vine than Henderson's Bush; otherwise is the same.

**BEANS—POLE LIMA VARIETIES****CAROLINA SMALL WHITE LIMA OR SEIVA** 76 Days

Vines vigorous, with many short branches so that they are sometimes grown without poles; very early and productive, bearing short pods, which are thin and curved. Seed white, flat.

**CARPINTERIA POLE LIMA** 88 Days

Vines vigorous, producing an abundance of large, medium green pods 5 to 6 inches long, containing 4 beans of large size.

**DREER'S IMPROVED LIMA OR CHALLENGER** 92 Days

A potato lima, similar in pod and seed to Fordhook Bush Lima. Plant vigorous, hardy, good climber, very productive. Pods straight, smooth. Quality of green shelled beans excellent. Seed large, almost as wide as long, flattish-oval, white with greenish tinge.

**FLORIDA BUTTER OR SPECKLED POLE LIMA** 80 Days

Vine medium heavy. Pod medium dark, 3 to  $3\frac{1}{4}$  inches long, thin, flat. Green shelled beans, pale creamy white color, fine flavor. In the Seiva class with a colored seed. Seed cream, purple speckled, medium small.



## BEANS — POLE LIMA VARIETIES — Continued

### LEONARD'S IMPROVED FLORIDA BUTTER POLE LIMA 80 Days

A new distinct variety. Pods large, beans very tender and of excellent quality. Heavy yielders. Seed is more than double the size of Florida Butter, very striking in appearance, creamy white, mottled with purple.

### JERSEY EXTRA EARLY LIMA 80 Days

Plant large, climbing, reasonably productive. Pods flat, straight. Seed large, flattened, white with greenish tinge.

### KING OF THE GARDEN LIMA 88 Days

The old standard market and family sort. The vine begins to produce pods at the foot of the pole and the bearing season continues until frost. Pods large and well filled with beans of mammoth size.

### LARGE WHITE LIMA 88 Days

Very productive. A favorite among the Lima Bean growers for the market. Pods contain 3 to 4 beans, which are large, white and flat.

### LEVIATHAN LIMA 79 Days

Plant 5 to 8 feet, vigorous climbing, prolific. Pods very straight, containing 5 to 6 beans. Seed large, flat, dull white.

### WOOD'S IMPROVED LIMA 80 Days

A slightly larger seeded and slightly larger podded variety of the Seiva family. Also a few days later.

## BEANS — POLE OR RUNNING VARIETIES

**CULTURE.** On well enriched soil, set firmly in the ground every 3 or 4 feet each way, poles that are, when set, about 6 feet high. Some time after bush beans are planted, plant six or eight pole beans one inch deep near the base of each stake and later thin to three or four plants to the pole. Thirty pounds of pole beans generously plants an acre and one pound plants one hundred hills. The pole bean bears over a longer period than the bush bean and is generally considered of superior quality but it requires more labor, longer time to mature and is more sensitive to adverse climate and soil conditions.

### ASPARAGUS OR YARD LONG 72 Days

Vine dark green, short runner, pole type, good growth of small pointed leaves. Pod light green, slim, somewhat inclined to saddle-back shape, rounded, 15 to 20 inches long, light string, no fiber, crisp and tender. Seed brown, small, short flat, kidney shaped.

### CREASEBACK, STRIPED OR SCOTIA 72 Days

A very hardy and productive cornfield Bean. Pods dark green, 6½ to 7 inches long, round straight and creasebacked; slightly stringy, very fleshy, fine grained, attractive and of good quality. Seed light tan, black striped.

### CREASEBACK, WHITE 63 Days

An extremely early Pole Bean. Vines small to medium and wonderfully productive, bearing pods in clusters of from 4 to 12 and medium in length. An excellent shipper. Seed small oval, white.

### CUT SHORT, RED SPECKLED OR CORN HILL 73 Days

A fine variety for planting with Corn, 5½ to 6 feet tall; pods 4 inches long, straight, thick, crisp when young. Seed grey, red speckled, small, oval.

### DUTCH CASE KNIFE, EARLY 65 Days

Vines moderately vigorous, climbing well, and excellent for a corn hill bean. Leaves are large, crumpled; pods 6 to 8 inches long, flat, green in color, becoming creamy white later. Beans broad, kidney shaped and white in color.

## BEANS—POLE OR RUNNING VARIETIES—Continued

**GOLDEN CLUSTER WAX, EARLY**

74 Days

Plants large with heavy foliage; very productive. Pods 7 to 8 inches long, wide, flat, waxy yellow, very meaty and stringless when young. Seed oval-flat, white.

**HORTICULTURAL CRANBERRY**

70 Days

Vines moderately vigorous, bearing short, broad, pale green pods, becoming streaked with bright red as they near maturity. Beans large, ovate and splashed with red. Used either green or in the dry state.

**KING MAMMOTH PODDED HORTICULTURAL OR WORCESTER POLE**

75 Days

Vine medium dark, heavy growing pole, leafy. Pod medium dark, 5 inches long, wide, thick. Largest of the horticultural family. Pods can be used as snaps if taken soon enough; best as a green shelled bean. Seed light tan, red speckled, medium large, nearly round.

**IDEAL BLACK POLE**

58 Days

Earliest and most prolific of the green podded pole beans, being a full week earlier than Kentucky Wonder. Pods 5 inches long, round, slightly curved; stringless and borne in clusters of six; very tender, pulpy and excellent in quality. Seeds black.

**KENTUCKY WONDER OR OLD HOMESTEAD**

65 Days

Vines vigorous, climbing well, and very productive, bearing its pods in large clusters; blossoms white; pods green. Stringless, 8 to 9 inches long; nearly round when young and very crisp, although at maturity they become irregular and spongy. The dry beans are long, oval, dun-colored.

**KENTUCKY WONDER WHITE SEEDED OR BURGER'S STRINGLESS**

64 Days

Pods 6 to 7 inches long, round, slender and straight; very tender, fleshy and stringless of high quality. Color dark green. Seed oval-flat, white.

**KENTUCKY WONDER WAX**

68 Days

Vine medium dark, heavy growing pole type, heavy leaf growth. Pods fine, wax color, 8 inches long, round when young, curved, very meaty, crisp, stringless when young, and without noticeable fiber. As pods age there is a trace of fiber, slight string, and they become somewhat saddle-backed. Very heavy bearer over a long period of time. Seed reddish brown, medium large, oval-flat.

**LAZY WIFE**

72 Days

Vine medium dark, quite a heavy growing pole type, with a fair leaf development. Pods medium light, 6 inches long, broad, flat, straight, stringless, very little fiber, meaty, crisp and well flavored. Good for snaps, green shell and dry shell. Seed white, medium small, nearly round.

**McCASLAN'S POLE**

65 Days

Vine medium dark, string growing pole type, with good leaf growth. Pods light, 8 inches long, flat, medium thick, broad, stringless when young, crisp, fiberless and well flavored. Makes a good snap when young, fine green shell and a fair dry shell. Seed white, medium small.

**MISSOURI WONDER OR NOXALL**

66 Days

Vine medium light, strong growing pole type, with good leaf development. Pod light green, 6 inches long, round slightly curved, crisp when young but tough and stringy at all stages. Seed grey, brown speckled, medium small.



## BEANS — POLE OR RUNNING VARIETIES — Continued

### SCARLET RUNNER, FLOWERING

90 Days

Vine very strong growing, dark colored, heavy leaf growth. long runner pole type. Pod dark, 6 inches long, wide, thick, straight, coarse grained at all stages, usable as snaps when very small, excellent green shell. Used mostly as a climbing ornamental vine on account of its purple blossoms. Blossoms freely from mid-summer to freezing. Seed dark purple with pinkish purple blotches.

### TENNESSEE WONDER

71 Days

Somewhat similar in habit to Kentucky Wonder but with immensely larger, straighter, smoother and more creasebacked green pods. More suitable as a shell rather snap bean. Seed slate-grey, black striped.

## BEET — FOR THE TABLE

**CULTURE.** As soon as the soil can be worked in spring, sow beet seed in 12- to 18-inch rows for hand cultivation or 18- to 30-inch rows for horse cultivation, dropping 12 seeds to the foot. Cover the beet seed, one-half inch. Later, thin the Beets to 3 to 4 inches apart. Planted April 1st the early varieties should be marketable June 1st or the crop may be advanced several weeks by starting under glass and transplanting to the open, first giving the beet tops a severe pruning. Use 1 ounce of seed to 75 feet of row and 6 pounds to the acre. Beets sown in early July should be ready to store in pits or in sand in the cellar when freezing weather begins. Number of days are from planting to edible root.

### BLOOD TURNIP, EARLY IMPROVED

60 Days

An extra selected stock of blood Turnip having larger, coarser tops and roots than the Detroit Dark Red and requiring a considerably longer time to mature. Excellent for summer and autumn use.

### BLOOD TURNIP, EDMAND'S

60 Days

The best sort for general crop. In quality one of the finest. Exceedingly dark, globular shape, having only one tap root. Very popular with market men.

### CRIMSON GLOBE, EARLY

58 Days

Tops medium large, nearly all red with a slim upright leaf development. Roots dark red, nearly a perfect globe, usually smooth and clear of side roots. Flesh dark red, faintly zoned, with purplish white.

### DETROIT DARK RED

55 Days

An outstanding variety for truckers, produce shippers and canners. Tops medium, dark green tinged with red. Roots globular. Color deep ox-blood red. Flesh dark red with indistinct lighter red zones. Fine quality, sweet and tender.

### EARLY ECLIPSE

55 Days

An early variety used by both market gardeners and home gardeners. Tops small; roots 2 to 3 inches long, bright red; shape globular.

### EARLY WONDER

55 Days

Roots very uniform, nearly globe-shaped with small top and tap root; skin dark red, flesh deep blood red with little zoning. Popular with market gardeners for early or late planting.

### EGYPTIAN, MICHAEL-LEONARD'S DARK RED

50 Days

The best stock of Egyptian Beet on the market today. It is dark red, free from light zones, early and an excellent beet in every way.

### EGYPTIAN, CROSBY'S

50 Days

An extra early variety especially adapted for the market gardener and home garden. Roots average 3 inches, of dark red color and almost globular; flesh distinct vermilion, which it retains in cooking. Tops medium.



## BEET — FOR THE TABLE — Continued

**EGYPTIAN, EARLY FLAT**

48 Days

Large, upright, dark red leaves with green tint. Roots a very deep, dark red, flat, thick, sometimes inclined to be rough and irregularly shaped. Usually clean and free of fiber roots. A small tap root. Cut flesh shows a very deep dark color with very faint zoning of slightly lighter red.

**GOOD FOR ALL**

55 Days

An excellent variety developed from Detroit Dark Red. Especially fine for canning and pickling whole at  $1\frac{1}{4}$  to  $1\frac{1}{2}$  inches in diameter. Roots smooth, even in size and shape and almost globular; collar and tap roots very small; interior deep crimson, free from white zones.

**LONG SMOOTH DARK BLOOD**

78 Days

The standard long, late sort. Roots 8 to 10 inches long, very dark, blood-red flesh; quality fine.

**LUTZ GREEN LEAF**

75 Days

A medium late variety for home use. Tops small, glossy green, with pink mid-rib. Roots half long, top-shaped; dark, purplish red. Flesh deep blood red with indistinct zones. Good quality and an excellent keeper.

**OHIO CANNER**

55 Days

A beet specifically adapted for commercial canning. It is slow in habit of growth, has an extremely small top. At the canning size of 1 inch to  $1\frac{1}{2}$  inches this beet is round and tender, extremely dark red in color; when canned remains red.

**PERFECTED DETROIT**

55 Days

A mid-season variety. Tops tall, green and red. Roots globular, medium smooth, deep red; flesh dark red with somewhat lighter zones; of good quality. Adapted to the uses of market gardeners and canners.

**SWISS CHARD, LUCULLUS**

55 Days

An improved type of Chard. Of more upright growth than the Silver variety; leaves yellowish green, much crumpled and curled, mid-rib and veins white, stalks thick, broad and flat and as large as rhubarb.

**SWISS CHARD, SILVER**

55 Days

Light green, blunt spear head leaf on a short stem, slightly lighter stem and vein. Makes a thick, heavy growth for cut-and-come-again greens. Grows 18 to 20 inches tall. Leaves usually quite smooth; sometimes slightly savoyed.

**SWISS CHARD, FORDHOOK GIANT OR  
DARK GREEN WHITE RIB**

55 Days

Very broad, thick, heavy, short white stem and a large, broad, thick, very much crumpled and savoyed spear shaped leaf, growing to 26 and 28 inches tall. Leaves very glossy and waxy looking; upright growth. Best of all the chards; leaves make the most tender of greens and the broad white stems used as asparagus are excellent.

## BEET—SUGAR

In growing, the sugar beet is treated like the mangel except that only six or eight inches of space is given each beet in the row.

**KLEIN WANZLEBEN — For Sugar**

90 Days

The variety most used for sugar manufacture on account of high sugar content; is also good for stock feeding. Roots long with thick shoulder, tapered; skin grey-white, flesh solid white.

## BEET—MANGEL WURZEL

Plow deep for this crop and in May or June plant six mangel seed to the foot in two or three rows, later thinning to a nine inch stand. One ounce sows one hundred feet of row and six pounds an acre. When a light frost has occurred, lift the roots and store in pits or cellars.

### GIANT HALF SUGAR ROSE — For Feeding

90 Days

This unites the large size of the mangel with the greater feeding value of the sugar beet. The roots average 10 to 12 inches and the outline is that of a broad, thick wedge, the upper portion of a soft bright pink, shading lighter toward the bottom where the lower portion for about one-third the length is white.

### GOLDEN TANKARD

100 Days

Shape cylindrical, color deep rich yellow; flesh yellow circled with white. Unequalled for feeding stock.

### IMPROVED MAMMOTH LONG RED

108 Days

The largest and most productive Mangel. Roots 5 inches thick, 15 inches long, tapering to a point. Grows half above the ground. Color light red.

### GIANT SLUDSTRUP OR YELLOW INTERMEDIATE

110 Days

A good cropper and of high feeding value. Roots long, oval, reddish yellow; grows half above ground, easily harvested. Flesh white tinged with yellow.

## BROCCOLI

### GREEN ITALIAN SPROUTING

60 Days

A distinct variety of the sprouting type. It forms a large head consisting of a cluster of bluish-green flower heads. When this central head is removed the plant develops numerous lateral sprouts, each of which produces a small head. These are cut, leaving about 6 inches of the stem, and are tied in bunches for market. Both stems and heads are cooked and served like cauliflower.

## BRUSSELS SPROUTS

One of the most delicious garden vegetables. Plant in 3-foot rows, 1½ to 2 feet apart. One ounce will produce about 5,000 plants. Cultivate same as cabbage. Autumn grown sprouts, drilled in May and transplanted in July, generally do the best, as the plants are quite hardy and the buds mellow under frost.

### DWARF IMPROVED

75 Days

Grows 18 to 30 inches high, producing compact sprouts 1 to 2 inches in diameter; grayish green in color. Hardy, early.

## CABBAGE

**CULTURE.** Cabbage plants, when properly hardened by gradually being brought to a low temperature and the quantity of water in them diminished, will stand any frost and some considerable freezing. Yet a cabbage plant raised at a high temperature and full of water will be killed by even a light frost. Cabbage can be grown by planting the seed heavily where the crop is to grow and thinning the plants but a better practice is to raise the plants without crowding, in a seed bed, which is not richer than the fields to which the plants go. Transplant, if possible, on a cloudy day, watering the plants if the soil is dry. For early Cabbage, sow seed in hotbeds in February, transplant to cold frames in March and set outside in April or sow seed out-of-doors as soon as the soil can be worked in spring, covering the seed one-third inch deep. All vegetable plants are best when grown without check, so let as much soil adhere to the roots of the plant in transplanting as will hold and set up to the first leaf. At this time the plants should have 4 or 5 pairs of leaves and be 4 to 6 inches high. Set small varieties to be worked by hand as close as 18 inches, while large, late varieties, horse cultivated, need 30 or more inches. If heads are so early as to begin bursting, push the head to one side far enough to tear off the roots on one side. Cabbage grows successfully on a wide variety of soils and experience points to liming, deep plowing and heavy manuring as successful practices. The number of days given is the time required from setting plants to mature heads.



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CABBAGE — Continued

- ALL HEAD EARLY** 78 Days  
A medium early variety, excellent for shipping and for kraut. Heads medium flat, slightly rounded at top, 7 inches deep, solid, uniform in size and color, and of good quality.
- ALL SEASONS** 88 Days  
Of medium season, a good keeper. Heads large, solid, 7 inches deep and of excellent quality. Stands hot weather well.
- BUGNER'S** 120 Days  
A winter Cabbage which has been and still is the most popular late variety around Chicago. It makes very large, somewhat flattened heads which are extra hard and solid. The variety is, furthermore, greatly resistant to "yellows" disease.
- CHARLESTON LARGE WAKEFIELD** 72 Days  
About a week later than Early Jersey Wakefield and 50% larger.
- CHINESE — CHIHILI** 75 Days  
Earliest and most sure heading of the Chinese varieties. Plant of upright growth, producing long, solid, white cylindrical heads, 3 to 4 inches thick, 18 to 20 inches in length. Leaves very broad, smooth, fringed on edge, with broad, white mid-rib. Superior quality.
- CHINESE — PE TSAI** 75 Days  
Early and sure heading. Outer dark green leaves enclose cylindrical, tapering head 15 to 18 inches long, very compact, white tinted with green; crisp and sweet.
- CHINESE — WONG BOK** 80 Days  
The heads of this variety are shorter and thicker than Pe Tsai, the incurving leaves producing a tighter, more compact head.
- COPENHAGEN MARKET** 65 Days  
One of the finest early round-headed cabbages in cultivation. The heads average about four pounds each in weight, are hard and solid with small core. The quality is extra fine and sweet. It is a short stemmed variety, the heads nearly resting on the ground. The leaves are light green, rather small, saucer-shaped and tightly folded, making it possible to set them close together in the field.
- DANISH BALL HEAD, IMPORTED** 110 Days  
Most widely used and best type of late cabbage; desirable for storage and for shipping. Plant fairly large, sturdy, with short stem. Heads deep, round, very hard; interior decidedly compact. Tender, crisp; flavor good.
- EARLY DWARF FLAT DUTCH** 70 Days  
An early Cabbage of good size. Heads are flat and very solid.
- EARLY DRUMHEAD** 83 Days  
A second early, sure-heading Cabbage of good quality. Plant of compact growth. Head large, thick, flattened on the top; solid, crisp and tender.
- EARLY JERSEY WAKEFIELD** 64 Days  
One of the most popular extra early varieties. The plants are compact, erect, with few outer leaves, and withstand cold and unfavorable weather well as they are very hardy. Heads medium size, cone-shaped and solid. Our stock has been very carefully selected.



## CABBAGE — Continued

- HENDERSON'S EARLY SUMMER** 77 Days  
One of earliest of flat head types. Heads solid and of good quality.
- EARLY WINNIGSTADT** 80 Days  
Medium early, short stemmed. Heads solid, fine grained, cone-shaped and pointed, the leaves having a peculiar and distinct twist at point of head. Very productive and of excellent quality.
- GLORY OF ENKHUIZEN** 80 Days  
This is an excellent mid-summer variety. Makes a nice large head, has few outer leaves and can be planted close. Very popular with kraut packers and market gardeners.
- GOLDEN ACRE** 65 Days  
A selection from the earliest strain of Copenhagen Market. It is a few days earlier, is a somewhat smaller plant and has a slightly smaller head than the Copenhagen Market. Very solid, fine grained and exceptionally well flavored. It is the best of the first early round heads for early market and shipping use.
- HOLLAND, BABY HEAD** 110 Days  
A late strain that has no equal. Round heads about 6 inches in diameter and borne on a stem of 5 to 6 inches. Although smaller than other late varieties, head is solid, white, sweet and keeps perfectly through the winter. Weight 6 to 9 pounds.
- HOUSER FLAT DUTCH** 105 Days  
An extra large, round, hard heading late sort.
- LARGE LATE DRUMHEAD** 110 Days  
Heads very large, flat, solid, 6½ inches deep; a good keeper. Desirable for home and market garden; also for shipping.
- PENN STATE BALL HEAD** 110 Days  
A late variety, excelling in productivity and uniformity. Plants medium with short stem. Heads attractive, flattened globe, extremely hard, 6 to 7 inches deep, weighing 5 to 6 pounds.
- PREMIUM LATE FLAT DUTCH** 102 Days  
This variety of late Cabbage is a standard in all sections for winter use. It makes a large, solid, flat head, which keeps long without bursting and is adapted to a more varied climate than probably any other variety.
- DRUMHEAD SAVOY** 89 Days  
The best winter keeper of the Savoys. Heads late, round, compact and solid; leaves numerous, deep green and coarsely crimped.
- IMPROVED AMERICAN SAVOY** 87 Days  
Closely approaching the cauliflower in delicacy and delicious flavor. The best of all Savoys for general market or home use. It has a short stump, grows to a large size, is compact and solid — a sure header.
- STEIN'S EARLY FLAT DUTCH** 92 Days  
An early and excellent type of Early Flat Dutch with a medium stem. Heads round, flat and solid.
- SUCCESSION** 85 Days  
Heads large, thick, flat, solid, 9 x 5 inches and weighs 7 to 8 pounds. Very crisp, well flavored, quite fine grained and well bleached. Early fall market and garden type.

CABBAGE — Continued

SUREHEAD	100 Days
A dependable late variety. Heads large, thick and solid. Good shipper.	
RED, ROCK MAMMOTH	105 Days
The largest heading of any red sort. Heads are hard, of deep red color, quality excellent.	
RED, DUTCH	
Leaves red or purple. Head medium size, round solid, deep red color. Stems of medium length. Good keeper.	

YELLOWS RESISTANT VARIETIES

ALL HEAD EARLY YELLOWS RESISTANT	82 Days
ALL SEASONS YELLOWS RESISTANT	92 Days
GLOBE OR GLORY OF ENKHUIZEN YELLOWS RESISTANT	80 Days
JERSEY QUEEN, RESISTANT WAKEFIELD	65 Days
MARION MARKET OR COPENHAGEN MARKET YELLOWS RESISTANT	75 Days
RED HOLLAND YELLOWS RESISTANT	100 Days
WISCONSIN NO. 8 YELLOWS RESISTANT	110 Days

CARROT — FOR THE TABLE

CULTURE. The Carrot, whether used raw, fried, boiled or stewed, used alone or combined with other vegetables or meat is not surpassed in nutritious healthfulness by any vegetable. Plant Carrot seed from the time the soil can be worked in the spring till July, in 1- or 2-ft. rows for hand cultivation or in 30-inch rows where a horse-drawn tool is used. Use 1 ounce of seed to 100 feet of row, 3 to 4 pounds to the acre, covering one-half inch deep and later thin to a 4-inch stand. To cultivate the rows at an early date, sow Radish seed, which germinates quickly, with carrot seed, which germinates slowly. Do not overlook the value of this crop as a stock food. Number of days are from planting to roots of bunching size.

CALIFORNIA PEERLESS	70 Days
This carrot is of outstanding quality, very smooth and of medium size with very small core and does not make very much top. The color is a bright red. It will stay in bunching condition for a long while and is a fine carrot to pack and sell in boxes. The crown is oval in shape and the tops do not break off as in other carrots.	
CHANTENAY	70 Days
Tops medium sized; necks small; roots tapering slightly but uniformly stump rooted and smooth; color deep orange-red; flesh very crisp and tender. A heavy cropper and is undoubtedly one of the best for both the market and private garden while its great productiveness makes it very desirable as a field sort.	
CHANTENAY, RED CORED	70 Days
An outstanding favorite with many people who grow carrots in their gardens. The rich deep reddish-orange color extends clear to the center. The root tapers to a blunt end.	



## CARROT — FOR THE TABLE — Continued

### LONG OR GREATER CHANTENAY

70 Days

This is a strain of Early Chantenay which resembles the original type in all respects except that it averages  $1\frac{1}{2}$  to 2 inches longer.

### DANVERS

73 Days

Grown largely on account of its great productiveness and adaptability to all classes of soil. Tops of medium size, coarsely divided. The smooth and handsome roots are deep orange, of medium length, tapering uniformly to a blunt point; flesh sweet, crisp, tender and of a deep orange color.

### EARLY SCARLET OR SHORT HORN

67 Days

Excellent for early planting out of doors. Tops small, coarsely divided; roots top-shaped but tapering abruptly to a small tap; skin orange-red.

### HALF LONG SCARLET CARENTAN

70 Days

A forcing variety, cylindrical in shape, about 4 inches long and 1 inch thick, very stumped with small rat tail and fine small tops.

### HUTCHINSON

75 Days

A variety that was developed by selection from the Danvers Half Long. It has slightly darker orange skin, grows an inch or two longer, but differs from the Danvers in that it carries its fullness well down to the end, making it decidedly stump-rooted. A heavy yielder and attractive in appearance.

### IMPERATOR

77 Days

Tops medium but strong enough for good bunching. Roots 7 to 8 inches long, have sloping shoulders, are smooth, deep rich orange; tapered to a semi-blunt end. Flesh rich orange color, extending to center of root with indistinct core; fine grained, tender and of fine quality. An excellent variety for market garden and shipping.

### IMPROVED LONG ORANGE

88 Days

A heavy cropping sort for garden use, and for stock. Roots tapered to a point; red-orange. Flesh similar in color to exterior, with core of lighter shade.

### MORSE'S BUNCHING

77 Days

Tops short; foliage rather coarsely cut and stems medium size and strong. Roots at maturity are  $1\frac{1}{4}$  to  $1\frac{1}{2}$  by 8 inches in size, almost cylindrical, with rounded shoulders, and are well stumped.

### NANTES HALF LONG OR CORELESS

70 Days

Tops of medium size, roots cylindrical, smooth, bright orange; flesh orange, becoming yellow in center but with no distinct core. Excellent for the market or home garden

### OX HEART OR GUERANDE

72 Days

Tops small for the size of the roots, which are comparatively short, but often reach a diameter of 5 inches, terminating abruptly in a small tap root. Flesh bright orange, fine grained and sweet. This variety is especially desirable for soil so hard and stiff that longer rooted sorts would not thrive in it. When young, excellent for table use, and when mature equally good for stock.



## CARROT — FOR STOCK FEEDING

### IMPROVED SHORT WHITE OR MASTODON

90 Days

Late, heavy cropper; one of the best for stock. Roots 7 to 8 inches long, 3 inches thick at the top; tapered, pointed; easily harvested.

### LARGE ORANGE BELGIAN

90 Days

This is similar to Large White Belgian in growth and form but flesh and skin of the portion growing below the soil are of a pale orange coloring.

### LARGE WHITE BELGIAN

90 Days

Grows a third or more above the surface. Roots will average 2 inches in diameter at the shoulder and a foot or more in length. Are easily pulled in harvesting and do not have to be dug out like most long rooted sorts. Flesh and skin pure white, tinged with green in upper portion growing above the soil.

## CARDOON

### LARGE SOLID

In appearance and growth is like the Globe Artichoke, to which it is closely related, and — like the Artichoke — it is a perennial. Grown for its leaf stalks, which — when blanched — are used in salads or cooked and served like asparagus.

## CAULIFLOWER

**CULTURE.** For very early Cauliflower sow in hotbed in January or February; transplant to flats or cold frames and set out as soon as the ground is warm in the spring, setting 2 to 2½ feet apart each way. One ounce grows 2,500 plants and four to six ounces plant an acre. Cauliflower cannot be expected to mature satisfactorily in hot, dry weather so must have plenty of water especially when the plants are heading. When the head appears, tie the outer leaves over the head or pin these leaves with wood pins or beef skewers so the leaves will shade and blanch the head and then cut the head before it starts to branch. Remember that all the enemies of cabbage emphatically attack Cauliflower and are to be combated in a like manner. For early fall and late Cauliflower, plant in open ground in April, transplanting in June, giving same cultivation you would Cabbage. The number of days given is the time required from setting plants to mature heads.

### EARLY SNOWBALL

55 Days

Plants dwarf, with short pale green leaves. Heads medium, firm, compact, solid, pure white, and of finest quality; a dependable header. Well adapted to shipping.

### CHICAGO SNOWBALL

57 Days

For early fall crop this variety is without equal. Plant in open ground in April and transplant in June; crop will then mature in September, making excellent solid, large white heads.

### SUPER-SNOWBALL

56 Days

A highly desirable main crop variety, also used for early planting. Starts heading early and uniformly. Heads medium large, compact, very white.

### DANISH DRY WEATHER

66 Days

Produces solid, pure white heads considerably larger than Early Snowball, but it is a week later. This variety is especially adapted for growing in dry sections where nearly all other varieties fail to make good heads, but does equally well in all weather.

## CELERY

**CULTURE.** Press celery seed into the ground; do not try to cover it and when seed is kept wet and not above 60 degrees F. germination occurs in 10 to 20 days. Celery needs 4 to 5 months from seed to use so very early Celery should be started in hotbeds after January and when two inches high, transplanted or thinned to a space of two inches. Later trim the tops to produce stocky plants and when five inches high set where plants are to mature, first trimming off one-third of the roots and leaves. Celery seed may be planted out-of-doors in April and treated as outlined above. Given sufficient water, celery can be grown on any good garden soil and one ounce of seed gives about 6,000 plants. When almost grown, Celery must be blanched by the use of boards, earth, paper or other covering. If boards are used, rows can be set as close as thirty inches; if earth blanched, 48 inches or more is better. Set plants six inches apart in the row and press the soil firmly about the roots. With a few stalks in a garden, a tile set over the plant or a wrapping of paper answers the purpose. If earth is used in blanching it should be drawn about the plant to one-third its height and repeated twice a few days apart till leaves only are exposed. Do not cultivate, hill or disturb celery when damp or rust may occur. In hilling with earth, place a peg at end of row with string to it and pass string about each plant so as to prevent earth from falling into the heart. To store, celery should be only partly blanched. Celery matures best in cool, moist weather, so the grower farther South may delay this planting calendar to fit his own market and convenience. Number of days are from sowing seed to edible stage.

**BOSTON MARKET**

120 Days

Outer leaves medium dark green, inner leaves pale green, tinted white. Forms several small hearts or stalks instead of one central stalk. Is dwarf in growth, 14 to 16 inches tall. Hearts are crisp, tender, and blanches to a medium deep yellow. Does well on lighter soils.

**DWARF GOLDEN HEART**

120 Days

Of sturdy, dwarf habit. It is solid, an excellent keeper and of fine, nutty flavor.

**FORDHOOK OR EMPEROR**

125 Days

Leaf (outer) dark green, (inner) yellowish green, medium large and quite thick, average 18 inches tall. Stalk large and thick, heavy, tender, crisp, very little fiber; blanches to a pale gold heart. Good garden and local market type. A fair winter keeper.

**GIANT PASCAL**

135 Days

This is a green leaved variety and an excellent sort for fall and winter use. It blanches to a beautiful yellowish-white color, is very solid and crisp and of a fine, nutty flavor.

**GOLDEN SELF-BLANCHING, ORIGINAL STRAIN, SELECTED**

120 Days

The original strain has a greenish tinted outer leaf and a yellow inner leaf, leaves are medium heavy with a fairly strong rib; grows 15 to 16 inches tall and is fairly compact in growth. Stalk is medium large, solid, very crisp, without fiber, and blanches to a medium deep yellow. It is most excellent for early market and shipping. Has a very fine flavor.

**GOLDEN SELF-BLANCHING, NEW TALL TYPE**

120 Days

Like the original type but has a slightly slimmer stalk and is 2 inches taller. Looks better when tied in bunches and packs better for shipping.

**EASY BLANCHING**

130 Days

Outer leaves medium dark green; inner leaves yellowish green. Thick, solid, upright growing, 16 to 18 inches tall. Stalk medium large and solid; blanches very easily and quickly to a pale yellowish white; is crisp and shows little or no fiber and has a good flavor. Good winter keeper.

**WHITE PLUME SELF-BLANCHING**

110 Days

This is the earliest and most easily blanched. The plants grow rapidly and blanch easily during the summer months. Later in the fall the central stalks and leaves are of pure snowy whiteness even without earthing up.



## CELERY — Continued

### WINTER QUEEN

120 Days

A medium dwarf, winter variety, slightly earlier than Giant Pascal. Stalks light green, broad, solid and crisp; blanches well to creamy white.

### WONDERFUL OR GOLDEN PLUME

115 Days

A selection made from the old type of Golden Self Blanching for a much larger heart or stalk; is a few days earlier. Has all the good points of its parent plus increased size and earliness.

## CELERIAC

### LARGE SMOOTH PRAGUE

120 Days

Grows 12 to 14 inches tall. Roots are tapered in shape, 2 by 5 inches; usually show considerable side roots. Flesh is pure white. Used as celery flavoring for soups. This is the most commonly used strain.

## CHERVIL

### CURLED

Greatly superior to the old plain variety, being earlier, more handsome, and having fully as fine fragrance and flavor.

## CHICORY

### LARGE ROOTED OR COFFEE

120 Days

The dried and prepared roots are used quite extensively as a substitute or adulterant for coffee, and the leaves used as a salad.

### WITLOOF OR FRENCH ENDIVE

Grown for its use as a salad, the blanched head resembling Cos Lettuce in appearance. The seed planted in the late spring gives parsnip-like roots by late autumn. The roots are then placed in earth where there is some heat, as in the greenhouse, boiler room, or a warm cellar. The root then throws out the blanched salad head.

## COLLARDS

### TRUE GEORGIA OR SOUTHERN

80 Days

Plant 2 to 3 feet high, forming a cluster of tender, undulated leaves at the top of its rather long stem; used as "greens" in the south and west.

### BUNCOMBE OR CABBAGE

A cross between Georgia Collards and Charleston Wakefield Cabbage, bred for the easy growth and hardiness of the Collard and the flavor and heading qualities of the Cabbage. It does not winter-kill with ice and snow and stands hot weather as well. Heads are rounded, not as firm as Cabbage but of delicious flavor.

## CORN SALAD

### LARGE SEEDED, LARGE LEAVED

This small salad is used during the winter and spring months as a substitute for lettuce and is also cooked and used like spinach. In warm weather the plants will mature in 4 to 6 weeks.



## SWEET CORN

**CULTURE.** Do not plant Corn in cold ground as the seed is liable to rot. About the middle of May, plant corn in hills 3 to 4 feet each way, dropping 8 to 10 seeds to a hill, later thinning to 3 stalks; or plant in 3- or 4-foot rows, dropping 3 or 4 seeds to the foot, later thinning to stand 1 foot apart in the rows. Seed should be covered  $\frac{1}{2}$  inch on heavy soil to 1 inch on light, sandy soil. One pound will plant 100 hills or 200 feet of row and 7 to 10 pounds plant an acre. Plant every two weeks up to July 15th for a continuous supply. Number of days are from sowing seed to roasting ear stage.

**ADAMS EARLY**

82 Days

Stalk 6 to 7 feet tall, rather heavy, with a good leaf growth, leaves dark and medium large; ears 7 to 8 inches long, slender, white, 12 to 14 rows of white, smooth, medium deep, medium broad kernels. Fairly tender and well flavored. Not a true sweet corn but used in the south for roasting ears.

**BANTAM EVERGREEN**

85 Days

A cross between Golden Bantam and Stowell's Evergreen. Ears 8 inches long, 12- to 14-rowed; grain rather broad and deep of a rich golden yellow color. One of the best canners' varieties.

**BARDEN'S WONDER BANTAM**

74 Days

Stalk 5 to 6 feet tall, slender, medium dark colored with a fairly heavy, low leaf growth, sparse at the top; ears 8 to 10 inches long, slender, white, 8 to 10 rows of broad, medium deep, thick, rich yellow kernels with typical bantam color and appearance but not so well flavored although it seems to be as sweet.

**BLACK MEXICAN**

85 Days

Popular for home and market garden use. Ears 7 to  $7\frac{1}{2}$  inches, 8-rowed; kernels tender, very sweet, white at eating stage, changing to blue-black at maturity.

**COUNTRY GENTLEMAN**

90 Days

Seed small, round, slim, pointed, shoe peg type; stalk 7 feet, medium heavy with a fairly heavy leaf growth uniformly up the stalk, quite dark green; ears 7 to 8 inches, tapered, small, white kernels (not in rows) very closely packed, very deep, slim, round top, pure white, very sweet and well flavored. Ears normally 24 to 30 inches from the ground; on good soil double eared stalks are the rule instead of the exception; a very heavy cropper on most any good soil. Main crop canning variety for so-called shoe peg canned corn.

**GOLDEN COUNTRY GENTLEMAN**

90 Days

A true-to-type-in-every-way Country Gentleman in a fine, deep, golden yellow color. Has all the good points of Country Gentleman including shoe peg shape of kernel, depth size of ear and general set-up of growth. Retains the flavor and sweetness of Country Gentleman.

**EARLY MINNESOTA**

83 Days

One of the standard early sorts. Stalk  $4\frac{1}{2}$  to 5 feet; ears 8-rowed, 9 to 10 inches long; kernels white, fairly tender and sweet.

**EARLY EVERGREEN**

83 Days

The ears of this corn grow 8 inches long, are mostly 14 to 18-rowed; a magnificent kind for market gardeners and for main crop in every home garden. It ripens 10 days in advance of Stowell's Evergreen and is equally as good for all purposes. The kernels are very sweet and tender and when eaten from the cob break off free from husky tips so common to some otherwise fine table corns.

## SWEET CORN — Continued

**NARROW GRAIN EVERGREEN**

92 Days

The ear is as large as the Stowell's Evergreen and averages 20 to 24 rows to the ear. The cob is small in comparison to the size of the ear, and the kernels are very long, narrow and remarkably free from starch. The rows are uniformly straight and the ear holds its evenness from butt to tip more uniformly than any other type of Evergreen.

**SMALL COB EVERGREEN**

95 Days

Stalk 8½ feet with fairly heavy, very strong, even leaf growth, the leaf being long and broad like field corn; ears 8 inches, very slender, with a very small cob, generally 8 rows with medium deep, medium broad, pure white kernels, very sweet and tender. Has a very heavy, long, close husk. Holds for weeks after becoming fit to eat.

**STOWELL'S EVERGREEN**

94 Days

Standard main crop variety. Excels in sweetness and productivity. It is popular for canning, for marketing and for the home garden. Stalks 7 to 8 feet; ears 14- to 18-rowed, 7 to 9 inches long.

**GOLDEN BANTAM**

78 Days

The most popular and finest flavored yellow sweet corn. Stalks 4 to 5 feet high; ears 6 to 7 inches long with 8 rows; kernels broad, sweet, very tender.

**IMPROVED GOLDEN BANTAM**

82 Days

A yellow variety good for home garden and canning. Ears large, 6 to 6½ inches long with 10 to 14 rows; kernels medium, tender and of good flavor.

**GOLDEN GIANT**

82 Days

A second early variety, producing ears 7 to 8 inches long, 14-rowed; kernels golden yellow, medium in size and of fair quality.

**MICHAEL-LEONARD'S GOLDEN HUMMER**

60 Days

The largest and earliest of the Yellow Sweet Corns and one of the best for market gardeners as well as home gardeners. Ears 6½ to 7 inches, 12-rowed; kernel golden yellow, medium deep, broad and of excellent flavor.

**GOLDEN SUNSHINE**

70 Days

An early variety of Golden Bantam type. Stalks 4½ to 5 feet high; ears 10- to 12-rowed, 6½ to 7 inches long; kernels large, broad, golden yellow and of good flavor.

**HOWLING MOB**

85 Days

One of the finest second early, large eared sorts, very productive, white and of excellent quality. Ears 7 to 9 inches long, 12- to 14-rowed.

**LEONARD'S EARLY**

60 Days

The stalks are short and stocky, usually producing two large, handsome, 12-rowed ears on each stalk. The corn is a beautiful, waxy white of wonderful, sweet flavor and is ready for market so much ahead of the other early varieties that it brings a high price.

**MAYFLOWER**

74 Days

One of the whitest and sweetest of the early varieties and an exceptionally good yielder. Stalks 4½ to 5 feet; ears 6½ to 7 inches, 10- to 12-rowed; kernels deep, medium broad.

**TRUCKER'S FAVORITE**

78 Days

A true favorite with the shippers in the south. The handsome ears are 8 to 10 inches long, 14- to 16-rowed, usually two to the stalk; kernels are white, deep, sweet and exceptionally tender.



## SWEET CORN — Continued

**WHIPPLE'S EARLY WHITE**

87 Days

An excellent mid-season variety with deep kernel, desirable for home and market garden. Stalk, 5½ to 7 feet, strong and erect, commonly bearing two ears 7 to 8 inches long, 14- to 18-rowed, well filled at tips; kernels deep, medium narrow, pure white, sweet and tender.

**WHIPPLE'S EARLY YELLOW**

81 Days

A remarkable yellow sweet corn of much merit. While the stalks grow 6 feet or more in height and the 10- to 14-rowed ears are 7 to 8 inches in length this variety matures only three days later than Golden Bantam. The kernels are broad, deep and of excellent quality.

## HYBRID SWEET CORN

**GOLDEN CROSS BANTAM**

84 Days

A bright yellow, 12-rowed corn with 8-inch ears borne well up on a sturdy stalk. The quality is fully equal to Golden Bantam in every way, matures six days later and is two to three times as productive. In addition, this corn is very resistant to the bacterial wilt known as Stewart's Disease, which often causes failure with other early yellow sweet corns. We cannot recommend this corn too highly for canners and table use.

**HYBRID COUNTRY GENTLEMAN**

90 Days

Like the open pollinated strains in all ways plus a greater uniformity in stalk type and a more uniform ear type without the usual high percentage of nubs and crippled ears, resulting in greater tonnage per acre yield and a greater cut per ton for the canner.

**MICHAEL-LEONARD SOO-BRED**

78 Days

Award of Merit 1935 All American Seed Trials.

This is the first year we have been able to produce enough of this outstanding corn to offer it in limited quantity to our own trade and we are sure you will be as enthusiastic about it as we are. The 9 to 10 inch ears are 16-rowed with deep, narrow, rich yellow kernels — tender, very sweet and exceptionally well flavored; stalk 6 to 7½ feet. An enormous producer. Matures a week earlier than Bantam Evergreen.

**MICHAEL-LEONARD'S HYBRID GOLDEN HUMMER**

60 Days

Like the open pollinated but more productive, more uniform and has a higher sugar content.

**TENDERGOLD**

72 Days

A very fine corn of outstanding quality introduced by us after years of research. Four days earlier than Golden Bantam and generally twice as productive, the attractive 8-inch, 12-rowed ears commanding a premium on the market. For tenderness and succulence we have never seen its equal, and it holds this fine quality two to three days longer than other corns. Produces heavy crops in areas where Golden Bantam succumbs to bacterial wilt (Stewart's Disease) and compares favorably with the Evergreens in canning cost.

**HYBRID EARLY EVERGREEN**

85 Days

Like the open pollinated in all respects plus far greater uniformity in stalk and leaf type and a far more uniform ear type with less small, deformed ears and nubs, resulting in a greater tonnage per acre yield and a higher cut per ton for the canner.

**HYBRID BANTAM EVERGREEN**

80 Days

Stalk 6 to 7 feet. Ear 9 to 9½ inches, 14-rowed with deep, rich yellow kernels, tender, sweet and well flavored. Earlier, more productive, more uniform and far better in every way than open pollinated Bantam Evergreen.



## HYBRID CORN

The fundamental principles of hybrid corn are somewhat complex, and the breeding work connected with its production is so varied and technical that its complete discussion here is impossible. For a complete treatise on this new type corn refer to the United States Department of Agriculture bulletins 1489 and 1744.

Briefly, a hybrid is a first generation cross between inbred lines of corn. These inbred lines are produced by causing a corn plant to be self-pollinated. Selection of the severest sort is carried on from five to eight years in this manner, and at the end of that time the inbreds are stable. From that time on, as long as the corn is kept pure, the inbred will reproduce exactly the same as its parents, and extreme uniformity is apparent. These inbreds have certain desirable characteristics, such as deep kernels, strong roots, stiff stalks, or a dark green color. Artificially crossing these lines produces a hybrid.

If the work of the breeder has been successful, the hybrid resulting from the crossing of inbreds (usually four) will be uniformly better than open pollinated corn. There will be a decided increase in yield, greater uniformity, and less of the undesirable characteristics found in ordinary corn.

After the proper hybrid recipes have been created, the work of production on a large scale is undertaken. Fields are planted with two kinds of foundation hybrids. One is used as the ear parent, the other as the tassel parent. The tassels are removed from the ear parent, and cross pollination is enforced in that manner. Seed is saved only from the ear parent rows.

As in every new industry there are cheap imitations of a good product for sale. The consumer will do well to beware of the purchase of hybrid corn from unknown sources. The best guarantee of dependability is the reputation of the producer.

*See page 64 for description of Iowa and Columbia Hybrid Corn*

## CRESS

### CURLED OR PEPPER GRASS

A small plant with frilled or curled leaves which are well liked when young for garnishing and for giving a warm pungent taste to lettuce. It grows best in cool weather and moist soil.

### TRUE WATER

A distinct variety of cress with small, oval leaves. It thrives best when its roots and stems are submerged in water, although a fair growth may be obtained in soil which is kept wet. The seed is usually sown and lightly covered in gravelly, mucky lands along the borders of small, rapid streams.

## CUCUMBER—PICKLING VARIETIES

**CULTURE.** For very early cucumbers sow April 10th in hothed upon pieces of inverted sod so that they can be transplanted without disturbing roots. When the ground is warm transplant into well prepared hills and protect with glass until hardened. For outdoor planting, wait until the ground is warm then sow 10 to 12 seeds in hills 4 to 6 feet apart each way, thinning 3 or 4 plants to a hill after danger from insects is over. Cultivate as long as possible; gather when large enough for use and to keep plants bearing do not allow them to ripen. Number of days are from planting to first picking.

### CHICAGO PICKLE, B. S.

57 Days

A variety esteemed above all others by Chicago market gardeners and extensively grown for the large pickling establishments. Fruit medium length, square ended, with large and prominent spines. Color a deep green. It combines all the good qualities of an early Cucumber.

### EARLY CLUSTER, B.S.

55 Days

Vines vigorous, producing the bulk of the crop near the root and in clusters.

### EARLY FRAME OR SHORT GREEN, B.S.

56 Days

An excellent sort for table use and for pickling. Fruit straight, handsome, smaller at each end, bright green; flesh tender and crisp and makes fine pickles.

### EVERBEARING, B. S.

56 Days

Small size, very early and enormously productive, and valuable as a green pickle. It continues to flower and produce fruit until killed by frost.

### BOSTON PICKLING OR GREEN PROLIFIC, B. S.

58 Days

Vine makes a heavy, rather short runner growth; fruit short, thick, very slightly tapered, blunt ends, very uniform in shape; fully developed fruit  $2\frac{1}{2}$  x 6 inches. Medium dark, uniform color. Good pickler.

### JERSEY PICKLE, B. S.

64 Days

The fruit of this variety grows somewhat larger than that of Boston or Chicago Pickling. Used in the same way — for small or large pickles, or for slicing.

### NATIONAL PICKLE, B. S.

54 Days

Early, high yielding variety especially bred for pickling in the small sizes. Fruit straight, symmetrical, blunt-ended, but not chunky.

### SNOW PICKLE, B. S.

56 Days

A choice pickling variety similar to Chicago Pickle but not so large.

### WEST INDIA GHERKIN

60 Days

A very small, oval, prickley sort, distinct from all others.



## CUCUMBER—SLICING VARIETIES

- A & C, W. S.** 68 Days  
Uniform, nearly cylindrical, very dark green, well rounded at ends. Highly desirable for shipping and for market gardens.
- IMPROVED LONG GREEN, B. S.** 68 Days  
Makes a heavy, long runner growth. Fruit  $2\frac{1}{2}$  x 10 to 12 inches, somewhat tapered, inclined to warts, uniform in shape and size. Color medium dark with light stripe toward blossom end. One of the best of the all-purpose types. One of the most dependable croppers under all conditions of weather and soil types.
- CLARK'S SPECIAL OR IMPERATOR, W. S.** 63 Days  
Fruit weighs  $2\frac{1}{4}$  pounds; handsome, very dark green color; slightly tapered at both ends; flesh crisp and firm and remains edible for a long time; very few seeds.
- DAVIS PERFECT, W. S.** 65 Days  
Fruit quite long and fairly large, tapered to both ends, smooth and uniformly well shaped. Firm flesh with a small seed cavity. Color is fine dark green, very uniform to tips. Fine shipper as it holds color and shape well.
- EARLIEST OF ALL, W. S.** 60 Days  
The earliest of the white spine cucumbers, medium in length, smooth and very symmetrical, while the dark green color is excellent. Its chief use is for long distance shipping; is also adapted for pickling and is grown commercially, to a large extent, in some sections. Size  $7\frac{1}{2}$  x  $2\frac{1}{2}$  inches.
- EARLY FORTUNE, W. S.** 63 Days  
The fruit measures 9 inches long and is slightly tapering. The thick flesh is pure white, firm and unusually crisp with very few seeds. The fruit is of a rich, dark green color which does not fade when shipped to distant markets.
- JAPANESE CLIMBING, B. S.** 60 Days  
Distinct climbing sort, used to cover trellises and fences. Fruit weighs 2 pounds; deep green, quite uniform and attractive. The color of ripe fruit is deep russet, traced with netting.
- KLONDIKE, W. S.** 63 Days  
A medium early, very good strain of white spine; fruit attractive, full, uniform, rather thick, short and blocky, tapering abruptly at both ends; color very dark green, which holds well.
- LEONARD'S SPECIAL DARK GREEN, W. S.** 72 Days  
Undoubtedly the finest of the long, large varieties. Fruit averages 14 to 15 inches in length, of very dark green color.
- SNAKE OR SERPENT**  
Vine makes a rather spare growth; long runner. Fruit runs up to 20 inches long and from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches through, quite dark in color with some lengthwise ridges. Inclined to be furry.
- STAYS GREEN OR BLACK DIAMOND, W. S.** 60 Days  
 $6\frac{1}{2}$  x  $2\frac{1}{4}$  inches. A good dark green color. Medium in size and a good shipper.
- STRAIGHT 8, W. S.** 66 Days  
Fruit symmetrical, cylindrical, about 8 x  $1\frac{1}{2}$  inches, and well rounded at the ends. Color deep green. Ideal for shipping and home use.



## CUCUMBER — SLICING VARIETIES — Continued

- VAUGHAN OR LONGFELLOW, W. S.** 72 Days  
Particularly valuable for home gardens as well as for shipping. Fruit a handsome dark green, retaining the color remarkably long after picking; straight and well filled at ends. Very few seeds.
- ARLINGTON WHITE SPINE** 60 Days  
Fruit slightly tapered, blunted,  $2\frac{1}{2}$  x 8 to 9 inches, and uniform in shape. Color medium dark green; holds fairly well. Good garden type but not a good shipper.
- EARLY IMPROVED WHITE SPINE** 62 Days  
One of the best sorts for table use. Vines are vigorous, fruiting early and abundantly; fruit uniformly straight and handsome, dark green with a few white spines; flesh tender and of excellent flavor.
- WHITE WONDER OR ALBINO, W. S.** 62 Days  
Heavy, medium long runner type. Fruit 3 x 7 inches, with straight, blunt ends. Color is creamy white. A useful novelty (as it is fairly well flavored) for slicing and for salads.
- WOODRUFF'S HYBRID, W. S.** 64 Days  
Valuable for market garden and shipping; a main crop sort, prolific and attractive. Fruit 8 to 10 inches long, weighing  $2\frac{1}{4}$  pounds; dark green, fairly uniform with rounded ends.

## DANDELION

### IMPROVED LARGE LEAVED

Thick leaves and deep green color make this far superior to the uncultivated plant. It is compact with an upright, regular tuft at the center.

## DILL

### MAMMOTH

Plant 2 to  $2\frac{1}{2}$  feet high, with leaves cut into thread-like segments. Seeds very flat, having strong, bitter flavor. Used for flavoring pickles.

## EGG PLANT

**CULTURE.** Treat the Eggplant like a tender tomato that requires even a longer period to mature. After cabbage plants are out of the hotbed or greenhouse, which is April, sow eggplant, keeping even the night temperature above 70 degrees. One ounce of seed gives 2,000 plants, and 4 ounces plant an acre. Transplant later to pots or to a 3- or 4-inch stand, and when corn is shoe high, put eggplant outside on rich, well-drained land. Set the plants 2 feet apart in 4-ft. rows, shading or watering the plants if it is sunny or dry. Number of days given is time required from setting plants to marketable fruit.

- BLACK BEAUTY** 90 Days  
The fruit is a rich, dark purple, large and symmetrical, maturing a little earlier than Improved New York Purple but usually not quite so large. A very desirable sort for the market as the fruit holds its color a long time.
- FLORIDA HIGH BUSH** 94 Days  
Plant, upstanding in growth, bears the fruit off the ground. Fruit, elongated and cylindrical, is purple in color. Highly resistant to blight and drought.
- NEW YORK IMPROVED PURPLE SPINELESS** 93 Days  
Plant makes a 2-foot growth, rather inclined to spread. Fruit oval, 6 x 8 inches, and tapered some towards top. Good color though not so dark as Black Beauty. It is a very heavy producer of large fruits.

## ENDIVE

**CULTURE.** Endive, or winter lettuce, used as a salad, as greens or garnishing, is usually planted one-fourth inch deep in a seed bed in mid-summer, and when convenient after a month transplanted to stand 1 foot apart in 18-inch rows. When almost grown and about 2 weeks before ready to use, it is blanched by tying the leaves together with soft cord, or the blanching is done by turning a flower pot or tile over each plant, or by blanching with earth, like celery. The blanching removes the green plant's acrid taste. The plant may be, but seldom is, used as an early spring crop. Three to five pounds of seed plant an acre. Number of days are from planting seed to edible stage.

### BROAD LEAF BATAVIAN — ESCAROLE

90 Days

One of the best varieties for salads. Leaves of upright growth, broad, more or less twisted and waved; bright deep green, with a nearly white mid-rib. Inner leaves form a fair head which blanches a creamy white.

### GREEN CURLED

95 Days

Plant 16 to 18 inches in diameter, tufty and full in center; mid-rib an inch broad, white, thick, tender and fleshy; blanches readily. Good fall variety.

### MOSS CURLED

95 Days

More finely curled, with a heavier and more dense plant than Green Curled.

### WHITE CURLED

100 Days

The divided leaves are of a very light yellowish-green color which blanches almost white.

### FULL HEART BATAVIAN

88 Days

An improved strain of Broad Leaved Batavian, with larger leaf and broader, thicker head at eating stage; earlier in maturity. The plant is medium large with compact, well-blanched heart of infolded broad leaves, thick and buttery in texture. Excellent for market gardeners and shippers.

**FRENCH ENDIVE.** See Witloof Chicory.

## HERBS

In borders and irregular parts of the garden it will prove profitable to grow a few herbs. Their use gives new and unusual flavors, pleasing aromas and perfumes and some medicines that are as serviceable as can be purchased. Exact cultural directions suited to them all is impossible. Give them generally the care given vegetables or flowers. Where the foliage is to be used, cut the young stems on a dry day, wilt in the sun, dry in the shade and either hang up in bunches or store in air-tight glass jars.

### ANISE

A hardy annual used for medicinal purposes and for seasoning and flavoring.

### BALM

A perennial used for a medicinal tea, and a beverage of lemon-like flavor.

### BASIL, SWEET

An annual used for seasoning sauces, soups and meats.

### BORAGE

A hardy annual grown for bee pasture; also used for flavoring.

### CARAWAY

In its second year this biennial produces seed for flavoring pastry, etc.

### CATNIP

Perennial. The leaves are used for seasoning.

### CORIANDER

An annual grown for the use of its seed in confectionery and liquors.

## HERBS — Continued

**FENNEL, FLORENCE**

An annual grown for the blanched base of its stem, which when cooked has a sweet taste, a delicate odor and somewhat resembles celery.

**FENNEL, SWEET OR COMMON**

Foliage used as a salad and the seed for flavoring.

**HOREHOUND**

The leaves of this perennial are used in medicines for coughs and colds.

**HYSSOP**

A perennial grown for the use of its foliage in medicine.

**LAVENDER**

A hardy perennial grown for its fragrance

**SWEET MARJORAM**

Treated as an annual and the younger foliage used for seasoning.

**ROSEMARY**

A fragrant perennial used for seasoning and medicinal purposes.

**RUE**

A hardy perennial to be used with caution medicinally.

**SAFFRON**

An annual used for seasoning, coloring and making cosmetics.

**SAGE**

The well known, hardy perennial used for seasoning.

**SUMMER SAVORY**

The foliage and flowers of this annual used for flavoring and seasoning.

**THYME**

The leaves of this perennial are used for seasoning and medicinally.

**WORMWOOD**

Perennial. A plant of fragrant odor but very bitter taste; leaves used as a tonic.

## KALE OR BORECOLE

**CULTURE.** In Virginia, kale planted in late August has some of its plants thinned out and sent to market within sixty days and the cutting then continues until the field is clean in April. Further north, kale is treated like a cabbage; that is, planted early in spring in hotbeds or out-of-doors and it is used in the fall when light frosts have improved it. Kale is sown in two and three-foot drills and then thinned to six to twenty-four inches, according to varieties. One ounce sows generously one hundred yards and four pounds plant an acre.

**DWARF CURLED SCOTCH**

55 Days

Plant low and compact, but with large, bright, deep green leaves, curled, cut and crimped until the whole plant resembles a bunch of moss. One of the best and most dependable types. When well grown and cooked is one of the most palatable of vegetables. Used as greens.

**SIBERIAN OR SPROUTS**

65 Days

In this variety the very large, green leaves are comparatively plain in the center but coarsely cut and frilled on the edge. The plant is low but spreading and very hardy.

**TALL CURLED SCOTCH**

60 Days

About 30 inches tall, with an abundance of dark green leaves, which are densely curled and cut, forming a very beautiful plant. It stands the winter in the middle states without any protection.



## KOHL-RABI

**CULTURE.** Plant in 18 to 24-inch rows as early as the ground can be worked in the spring, thinning out to stand 4 inches apart in the row. Bulbs should be used when they are 2 to 2½ inches in diameter and cooked same as turnips. Sometimes planted in hotbeds and transplanted for very early maturing Kohl-rabi. One-third ounce plants 100 feet and 4 pounds an acre. Number of days given is from planting to edible bulbs.

### EARLY PURPLE VIENNA FORCING

60 Days

Bluish purple, similar to Early White Vienna Forcing except in color.

### EARLY WHITE VIENNA FORCING

An extra early variety making bulbs 2-2½ inches in 55 to 60 days after seed is sown outdoors. Has very few short leaves. Bulbs are sweet and tender.

### LARGE GREEN

75 Days

Hardy, quite late, and used for feeding stock. Bulbs large, weighing 8 to 10 pounds; whitish-green in color. Leaves large and numerous.

## LEEK

**CULTURE.** This mild member of the onion family is used in soups and salads. Sow one ounce to one hundred feet of row and four or five pounds to the acre, one-half inch deep, as early as the soil can be worked in spring. Thin the plants to a stand of four to six inches in twelve to eighteen-inch rows. It is advisable to throw earth to the plant to blanch it, very much as celery is blanched.

### LARGE AMERICAN FLAG

Makes large, dark green leaves and medium large bulbs on a pure white stem 1½ to 2 inches by 7 inches. It is very hardy and productive.

### LARGE MUSSELBURG

The large variety, often 3 inches in diameter, and becoming very white and tender. A hardy and desirable sort.

### LONDON FLAG

Stems 8 to 10 inches long, 1½ inches thick; white. Leaves large, dark green, drooping backwards.

### MONSTROUS CARENTAN

A favorite market variety; large, thick stem of mild flavor and attractive appearance.

## LETTUCE

**CULTURE.** As Lettuce will stand considerable freezing, it may be seeded or transplanted out-of-doors as soon as the soil can be worked in the spring. For a succession, replant every 3 weeks till within 60 days of freezing weather. The soil cannot be made too rich and the crop must be grown quickly and unchecked to be of superior quality. Lettuce is frequently started under glass, like Cabbage in hotbeds; in February transplanted to cold frames and hardened to be set out-of-doors in early April. In more southern or milder winter climates, Lettuce may be sown in autumn, protected with sash or coarse litter, and in late winter planted, transplanted or thinned and matured where planted. When the crop is matured under glass it requires much ventilation and little heat and beware of too much water in cloudy weather. In the summer's heat, canvas or a slatted half shade and plenty of water is of value. One ounce of seed gives 2,000 plants and 3 pounds plants an acre. In the seedbed drop 25 seeds to the foot and gently rake it in; failure may result from too deep a covering. Mature Lettuce in 12- to 18-inch rows, giving the loose leaf varieties 3 to 8 inches in the row, and Head Lettuce 6 to 12 inches. Number of days given is from sowing seed to marketable crop.

## LETTUCE — Continued

- BIG BOSTON, W. S.** 76 Days  
Head of medium size, compact, with creamy yellow heart. Leaves smooth, glossy, wavy at edge and slightly tinged with brown. Quality excellent. A popular variety for outdoor culture.
- BIG BOSTON, B. S.** 76 Days  
Similar to regular Big Boston but has larger outer leaves and the head is usually not so firm.
- BLACK SEEDED SIMPSON** 46 Days  
Forms large, loose, yellowish-green leaves, crumpled and frilled, exceedingly tender and crisp. Very popular home garden variety as it is very early.
- BROWN DUTCH, B. S.** 76 Days  
Plant medium large, dark green overlaid with bronze red. Heads moderately firm, buttery and yellowish inside. Very hardy.
- CALIFORNIA CREAM BUTTER, B. S.** 75 Days  
Popular with market gardeners and home gardeners. Heads large and globular with golden yellow interior. Leaves large, thick, dark green tinged and spotted with brown.
- CHICKEN, W. S.** 35 Days  
A dark green cutting lettuce; butter type, producing the largest supply of leaves of any known lettuce. Grown for poultry and rabbit feed.
- EARLY CURLED SIMPSON, W. S.** 45 Days  
Forms a close, compact mass of curly, yellowish-green leaves; early, hardy plant. Leaves are tender, sweet and of excellent quality. An old favorite with home gardeners.
- GRAND RAPIDS, B. S.** 43 Days  
An excellent forcing variety as well as one of the best for outdoor planting. Plant erect; leaves medium light green, very curled and fringed. Stands heat and dry weather well.
- HUBBARD'S MARKET, W. S.** 67 Days  
Well known butter-heading variety; also popular in Cuba and South America. Plant dark green with crumpled straight edged leaves; compact, medium sized, fairly firm, globular head is well blanched, buttery and sweet.
- ICEBERG, W. S.** 80 Days  
Large curly leaves of bright, light green with a very slight reddish tinge at the edges. The unusual solidity of the heads is insured by the large, white main ribs of the leaves, each of which curves strongly to the center, making it impossible for the leaves to open outward and expose the center which is constantly and thoroughly blanched.
- IMPROVED HANSON OR NONPAREIL, W. S.** 78 Days  
Plant very large with thick yellowish-green leaves; heads large, firm and cabbage-like with sweet, tender heart. Good for midsummer planting and popular with home gardeners.
- MAY KING, W. S.** 62 Days  
Plant this lettuce for the first early head lettuce. It is equally good for outdoor planting or forcing. The outer leaves have a slightly brownish tinge, while the heart is a beautiful yellow, very crisp and tender.

## LETTUCE — Continued

**MIGNONETTE, B. S.****60 Days**

Plant medium small, compact, medium brown with dark greenish tinge. Leaves frilled; head globular and firm; heart almost white. Excellent quality.

**NEW YORK OR WONDERFUL, W. S.****78 Days**

One of the very best of the curled or crisp heading varieties. The head, at first pointed or conical, becomes globular at maturity and is of medium large size, dark green in color and slightly curled on edges. Heads are very hard and well blanchd. Quality is excellent, being sweet, yet never buttery in flavor.

**PRIZEHEAD, W. S.****47 Days**

The name is misleading as it is a non-heading variety. Very early, quick growing, making a lot of good eating leaves of excellent flavor. Leaves are light green with very ragged brown edges. A most popular variety with home gardeners.

**SALAMANDER OR BLACK SEEDED TENNIS BALL****68 Days**

Leaves medium green and crumpled. Head globular, hard and buttery, and of good flavor. One of the most popular with market gardeners because it makes heads in hot weather when other varieties fail.

**TENNIS BALL OR BOSTON MARKET, W. S.****70 Days**

A forcing variety. Head of medium size, round and solid, buttery and of delicate flavor. Leaves crumpled, medium green, lightly tinged with brown.

**ROMAINE OR PARIS WHITE COS, W. S.****77 Days**

The best known and most popular Cos variety in America. It is medium large, medium green, and forms a good, well folded head of fine quality, which blanches readily.

**WHITE BOSTON OR UNRIVALLED, W. S.****76 Days**

Similar to white seeded Big Boston but with leaves slightly lighter green and free from a brown tint; heart buttery, yellow; of excellent quality. Highly desirable for nearby markets

## MUSKMELON

**CULTURE.** For muskmelon follow our cultural directions for cucumber except that where a robust growing variety of muskmelon is grown, a space of as much as six by six feet is sometimes required between hills. One ounce of seed plants fifty hills and three pounds plants an acre. The crop, or the last planting for a succession, should be in June. While not necessary it is advisable to pinch off the branches of muskmelon if a quicker matured or a larger or a better fruit is required. Pick the melon when it parts from the stem, without difficulty and store a few days in a cool room. Number of days are from planting to ripe fruit.

**BANANA****96 Days**

Fruits 3 x 14 inches, long slim, tapered, slightly ribbed and tapered to both ends. Yellowish green to yellow as it ripens. Flesh is thick, salmon in color; small seed cavity, and if picked just as it ripens it is very well flavored.



## MUSKMELON — Continued

**BENDER'S SURPRISE**

94 Days

Fruits 8 x 7½ inches. It is the largest of the pink fleshed melons of oval shape, early for a melon of this size. The flesh is of exceptionally high quality. It has coarse netting, distinct ribs and the rind is very hard, enabling it to be shipped some distance.

**BURRELL'S GEM**

95 Days

Fruit 4 x 6 inches, tapered oval, slightly ribbed, thick fine netting. Color is green, shading to deep yellow as it ripens. The flesh is thick, firm, orange-pink in color, of excellent flavor, with a small seed cavity. It is an excellent shipping melon.

**CASABA GOLDEN BEAUTY**

110 Days

Fruit 7 to 8 inches, round, no ribs, no net, light green to yellow when ripe. The flesh is very thick, white, fine grained, sweet and very well flavored. The skin is wrinkled when ripe.

**DELICIOUS GOLDEN LINED ROCKY FORD**

93 Days

Fruit 5¼ x 5¼ inches, very slightly oval, no ribs, finely netted. The flesh is very thick, solid, tender, sweet, green outer to a bright yellow center. Very small seed cavity. Excellent keeper and long distance shipper.

**EARLY GREEN NUTMEG**

88 Days

Fruits 5 x 5½ inches, rather heavily ribbed and fairly well netted; flesh green. It is very early and one of the most prolific muskmelons — one of the oldest of the desirable varieties.

**EDEN GEM**

86 Days

Fruits 5 x 5½ inches. This variety is highly esteemed on account of its rust-resisting qualities. It has very solid netting with almost invisible ribs, nearly ball shaped, with green flesh. Fine for home use or market.

**EDWARD'S PERFECTO**

92 Days

Fruits 5½ x 6 inches, nearly round, and completely covered with hard grey netting without ribs. Flesh is very thick with extremely small seed cell; deep salmon color; fine grained, juicy and sweet.

**EMERALD GEM**

85 Days

Fruits 4½ x 5 inches, globular or slightly flattened, somewhat irregularly ribbed and very slightly netted. It is a very early, yellow fleshed melon of small to medium size, one of the very best for the home garden.

**FORDHOOK**

87 Days

Fruits 3½ x 4¾ inches, weighing about 1¾ pounds. The shape is flattened, with prominent ribs and heavy net. It is considered to be the best of the small, early pink fleshed muskmelons, its sweet spicy flavor being unsurpassed. Excellent for home garden use.

**HACKENSACK, EXTRA EARLY**

82 Days

Medium to large sized, nearly round or somewhat flattened, evenly and deeply ribbed, with very coarse netting. Skin is green, slightly tinged with yellow as the fruits mature. Flesh is green, a little coarse but juicy and sweet.

**HACKENSACK, LARGE OR TURK'S CAP**

90 Days

A very large, green-fleshed melon. The vines are hardy, vigorous and productive. The fruits are nearly round, usually somewhat flattened; ribs are large and of irregular width, densely covered with coarse netting.

## MUSKMELON — Continued

**HALE'S BEST, NO. 36****83 Days**

Fruit 5 x 5½ inches, nearly round, very lightly ribbed, finely netted, green shading to light yellow as it ripens. Flesh thick, firm, stringless and very well flavored; not too sweet. Very small seed cavity with tight web of a salmon pink color. An exceptionally fine early strain for long distance shipping purposes.

**HONEY BALL****105 Days**

A cross between Honey Dew and Texas Cannonball. Fruits 5 x 4¾ inches, round, no ribs, netted, light green turning to yellowish white as it matures. Flesh greenish-white, quite thick, fine grained and firm. Very small seed cavity; thin skin. Flavor is sweet but rather flat. Good keeper and shipper.

**HONEY DEW****113 Days**

The fruits are round and slightly oval, 6 to 8 inches in diameter, and weigh about 6 to 8 pounds. The skin is smooth and when ripe is creamy yellow in color; flesh light emerald green, fine grained and of very sweet, sugary flavor. Rind thin but very firm, and the fruit stand shipping remarkably well.

**HONEY ROCK OR SUGAR ROCK****85 Days**

Fruit 5 x 5½ inches, nearly round, no ribs, coarsely netted, grey-green to light yellow as it ripens. Flesh is very thick, tender, salmon pink in color and very well flavored. Very small seed cavity. This is a new type that has become very popular with home market gardeners.

**HOODOO OR HEARTS OF GOLD****90 Days**

Fruits 5 to 5½ inches, nearly round, very slightly ribbed, finely netted, light green to light yellow as it ripens. Flesh is very thick, firm and delicious. Very small seed cavity with a tight web. Color a bright yellow shading to pink. Stands shipping very well.

**IMPERIAL SPECIAL****95 Days**

Fruit 5 x 6 inches, oval, no rib, heavily netted on a smooth hard skin. Flesh, a bright golden color, is very thick, fine grained, tender and very well flavored. Very small seed cavity. Excellent shipper.

**IMPROVED CANTALOUPE****94 Days**

A very long, large melon with pink flesh, heavily netted and prominently ribbed. Exceptionally sweet and spicy but a poor keeper.

**KNIGHT****88 Days**

Fruits 5 x 6 inches, oval, lightly ribbed, heavily netted, dark green to medium light yellow as it ripens. Flesh is thick, light green shading to a light pink center, firm, tender and of exceptional flavor.

**LAKE CHAMPLAIN****87 Days**

This very early maturing melon produces almost round, medium sized melons, well netted, moderately ribbed, thick fleshed, sweet and melting, of golden yellow color. The plants are hardy, vigorous and very productive.

**MILWAUKEE MARKET****87 Days**

A medium large, early maturing, pink fleshed melon with excellent eating qualities. The ribs are fairly prominent and the netting is very heavy. The shape is slightly oval, the rind extremely hard, making it an excellent shipping variety.



## MUSKMELON — Continued

**NETTED GEM**

92 Days

The fruit is small, almost round, smooth and showing no ribs, densely covered with heavy, hard grey netting; flesh thick and deep green, showing a faint lining of pink or gold at the center.

**OHIO SUGAR**

95 Days

Fruit 6x6 inches, slightly oval, deeply ribbed, finely netted and light green in color. Flesh is light green, thick, firm, sweet and well flavored; fairly fine grained. Large seed cavity. Good garden type.

**OSAGE OR MILLER'S CREAM**

94 Days

Is of medium size, oval in form and dark green in color, somewhat netted and slightly ribbed. The flesh is extremely and uniformly thick, of firm texture and rich salmon in color, highly flavored and delicious to the rind. Seed cavity very small. It is a remarkable keeper and a good shipping melon.

**PAUL ROSE OR PETOSKEY**

90 Days

Fruits oval, slightly ribbed and densely netted; vines vigorous and productive. A yellow fleshed sort of suitable size for a crate melon and of excellent quality.

**PEARL PINK MEAT**

93 Days

Fruits are 4½ x 6 inches, oval, slightly ribbed, thickly netted and pale green to pinkish tan when ripe. Thick flesh of deep pink color and excellent flavor. Small seed cavity. A shipper of merit.

**PERSIAN**

102 Days

A variety of distinctive flavor, which must ripen on the vines in order to be pleasing to the taste; bright orange, thick, juicy flesh. Needs a long growing season.

**POLLOCK 10-25**

95 Days

Fruit round, averaging 5 inches, little to no rib, heavily netted, medium light green shading to a dark yellow. Flesh very thick, salmon tinted, solid, fine grained and of exceptionally fine flavor. Very small seed cavity.

**ROCKY FORD, GREEN FLESHED**

95 Days

Almost round in shape, covered with netting and averaging about 5 inches in length; flesh green, very sweet and highly flavored.

**TIP TOP**

89 Days

This very productive melon is of medium to large size, nearly round, slightly ribbed and fairly well covered with shallow netting. The flesh is deep yellow in color, sweet, juicy and of finest flavor, firm but not hard; edible to the very coating.

**VINE PEACH, MANGO MELON**

85 Days

Fruits 1½ x 2 inches, oval, ribless, no netting; covered with peachlike fur. Used for preserves.

**YELLOW MEATED JAPAN**

96 Days

A large pink meated melon with whitish skin turning to a lemon color as it approaches maturity, moderately ribbed and netted; medium late in maturing. Not adapted to shipping.



## WATERMELON

CULTURE. For watermelon, follow our cultural directions for cucumbers, except that it is necessary to give the watermelon a space of eight to ten feet between hills, and thin the plants to two to the hill. One ounce plants twenty-five hills and three pounds of seed plant an acre. Number of days given are from planting to ripe fruit.

**ALABAMA SWEETS** 90 Days

The melons are large, of oblong form, and have a firm, dark green, slightly striped rind. The flesh is bright red and of delicious flavor.

**ANGELINO** 90 Days

Fruit nearly round, deep green with darker green stripe; stripes irregular. Flesh is bright red, crisp, tender and of excellent flavor. Early, prolific and a good shipper.

**BLACK SPANISH** 88 Days

Nearly round with very deep green skin; early and productive; weight about 20 pounds.

**BRADFORD** 90 Days

Shape long; color dark, with darker wavy bands; flesh melting and excellent.

**CITRON, RED SEEDED** 95 Days

For preserves and candied fruit. Round green fruits, distinctly marked with irregular stripes. Flesh white, very firm and solid. Not good to eat uncooked.

**COLE'S EARLY OR HARRIS EARLY** 80 Days

The best of the extra early sorts. Fruits slightly oval with irregular mottled stripes of light and dark green. Flesh bright red, sweet and tender. A desirable variety where the season is short. It is hardy, productive and the largest of the early kinds.

**DIXIE** 90 Days

Size 10 x 18 inches. Fruit medium large oval, dark green with lighter stripe; flesh bright red, very sweet and tender; skin thin and crisp; seed black. Excellent home market and garden type.

**DIXIE QUEEN** 85 Days

Fruit round or blunt oblong, grey with prominent dark green stripes. Flesh richly colored, firm, sweet and juicy, with very small white seeds. Good shipper.

**EARLY FORDHOOK** 85 Days

Size 14 x 12 inches. A large, extra early melon of good quality. The rind is dark green mottled with stripes of a darker color. The flesh is deep pink and the seeds are white. A widely used watermelon chiefly because of its extreme earliness.

**FLORIDA FAVORITE** 88 Days

A very large, long melon, mottled dark green with stripes of lighter shade. Rind thin but firm; flesh very bright, deep red, very sweet, tender and of excellent flavor.

**GOLDEN HONEY (Yellow Meated)** 90 Days

The best of the yellow fleshed melons. It is oblong in shape and the average weight is 20 pounds. The rind is dark green with irregular stripes of darker green.

## WATERMELON — Continued

**GYPSY OR GEORGIA RATTLESNAKE****94 Days**

Fruit cylindrical, square at the ends, smooth and distinctly striped and mottled light and dark green. Flesh bright scarlet and very sweet.

**HALBERT HONEY****85 Days**

Fruit long, 12 x 18 inches, slightly tapered, dark green with lighter green veins or net. Flesh rich, bright red, fine grained, sweet and well flavored. Skin is thin and crisp; seed white with black or brown tip and rim. An excellent garden type.

**HUNGARIAN HONEY****87 Days**

An early sort, fine for northern latitudes; perfectly round with brilliant red flesh.

**LONG LIGHT ICING OR GREY MONARCH****85 Days**

Fruit long and slender, 8 x 14 inches, light green with fine net of greyish green. Flesh bright red, firm and crisp, well flavored and sweet. The skin is thin and quite brittle; seed small and white. Good garden and home market type.

**IRISH GREY****90 Days**

Fruit is long oval, blunt at both ends, light greyish green color. Flesh is bright red, sweet, firm and very well flavored, with few seeds. The skin is thin but quite tough; seed white.

**KING AND QUEEN, WINTER****85 Days**

Skin is light cream with faint stripes of light green. Prolific and of excellent quality. Properly stored it will remain edible for several months. Good shipper.

**KLECKLEY'S SWEETS OR MONTE CRISTO****86 Days**

Unsurpassed for home use or near markets. Fruit medium to large size, oblong, tapering slightly towards the stem end, dark green, often showing fine russetting. Flesh very bright, rich red, exceedingly sweet, crisp and tender.

**KLECKLEY'S SWEETS WHITE SEEDED****88 Days**

A very valuable melon, wonderfully productive; long, thick, and uniform in size. Color of rind dark bluish green. Flesh sparkling red, sweet and entirely free from hard centers.

**KLONDIKE, IMPROVED BLACK SEEDED****83 Days**

For genuine merit, not surpassed by any other kind. Rind dark green with attractive bright red flesh. Seeds small and black.

**PEERLESS OR ICE CREAM****84 Days**

Fruits short, oblong, medium green, with fine veining; rind thin and tender. Flesh bright red and very sweet; seed white.

**PHINNEY'S EARLY****85 Days**

Fruit long with blunt end, 8 x 16 inches, in mottled shades of green. Flesh bright pink, not too firm, sweet and well flavored; loose seed web with a great many seed. Rind is thin and brittle; seed white with black tip. Good garden type of large early melon.

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WATERMELON — Continued**STONE MOUNTAIN**

88 Days

A very large, medium dark green, round melon of excellent quality. Flesh highly colored, very solid, with fewer seeds than most watermelons. It has gained a well deserved popularity in the south where the fruits frequently attain a weight of 60 to 80 pounds. The rind is tough enough to stand handling for nearby markets but will not stand long distance shipping.

**SUN, MOON AND STARS**

88 Days

Fruits oval to almost round, medium light green with varied sizes of darker stripes. Both fruits and leaves are spotted with light yellow spots of varied sizes. Flesh is bright red, very sweet and well flavored but somewhat stringy.

**SWEETHEART**

89 Days

This melon is large, handsome, heavy and productive. The shape is oval and the color mottled light to a very light green. Flesh bright red, solid but tender and very sweet.

**THURMOND GREY**

92 Days

An improved strain of Irish Grey; has larger fruits and is more resistant to disease. A popular shipping type of grey melon.

**TOM WATSON**

91 Days

A large melon similar in shape and splendid quality to Monte Cristo but averaging larger in size and with a tougher rind, making it especially adapted to shipping. The rind is dark green with distinct, fine veining; flesh is rich red, sweet and tender. One of the best shipping melons.

**MUSTARD**

**CULTURE.** Mustard is grown for its seed which is used for flavoring or medicinal purposes or grown for its leaf which is used in salad or cooked like spinach. Sow mustard as soon as the soil can be worked in spring and every three weeks for a succession, or in the South it may be sown in the fall for early spring greens. Cover the seed lightly in twelve to eighteen inch drills. Cut the leaf when not over four inches high. Number of days given is from planting to cutting.

**BLACK OR BROWN**

30 Days

Leaf dark green, medium large and very smooth with cut edge; broad oblong. Seed dark reddish brown in color and used for grinding for prepared mustard.

**CHINESE BROAD LEAF**

35 Days

Plant medium large and vigorous; leaves broad, large, oblong and slightly crumpled; medium green; scalloped at edges. Seed reddish brown in color.

**FLORIDA BROAD LEAF**

40 Days

Leaf very large, broad, long oval with a smooth saw-toothed edge and broad white mid-rib; bright green in color. Makes a strong, quick growth, spreading out somewhat more than other smooth types. Holds well in hot weather. Seed dark brown in color.



## MUSTARD — Continued

## SOUTHERN GIANT CURLED

35 Days

Leaf very wrinkled, blistered and curled at the edges; light yellowish-green in color. Very prolific. Holds fairly well for spring planting but is mainly used in the south as a winter greens crop. Seed dark brown in color.

## LARGE SMOOTH LEAF OR BLOOMSDALE

35 Days

An excellent variety with very large, green, comparatively smooth leaves borne well above ground. Quick growing, fairly upright when young but becoming somewhat spreading when matured. Preferred by many because it is more easily prepared for the table than the rougher leaved varieties.

## WHITE LONDON

30 Days

A rapid growing, upright plant, which quickly goes to seed. Leaves small, dark green, smooth and deeply cut. The large, light yellow seeds are used largely for ground mustard.

## MUSTARD-SPINACH OR TENDERGREEN

30 Days

Plants of rapid and vigorous growth with comparatively narrow, spoon-shaped leaves of dark green. It will stand longer than most varieties without sending up seed stalks. Combines the flavor of mustard and spinach. Seed dark brown.

## OKRA

CULTURE. The pods of this plant are used in a great number of ways throughout the Southern States, and the plant should be more frequently grown in the North. Plant at corn planting time in rich land, sowing the seed thickly in two to three-foot drills, and thinning to an eight to twelve-inch stand, according to varieties. A generous planting is two ounces to one hundred feet and ten pounds to the acre. Okra seed may be planted six seeds to the hill, two to three feet apart and thinning to two plants to the hill.

## DWARF GREEN

An early dwarf growing sort with dark green, fluted, pointed pods 5 to 7 inches long; quite prolific.

## LONG GREEN

Like Dwarf Green but somewhat taller; stalks 4 to 5 feet tall. Pods are like the dwarf.

## PERKINS' MAMMOTH LONG POD

Stalks 4 to 5 feet tall; treelike growth. Pods 6 to 7 inches, pointed, ribbed and usually slightly curved. Tapered and medium dark green in color. Very productive and medium early. Main canning variety.

## WHITE VELVET

Stalk 5 to 5½ feet tall; rather slender, treelike growth. Pods are 6 to 7 inches long, slim, pointed, somewhat ribbed and light cream colored. Productive and early. Fine garden type.

## ONION

**CULTURE.** As soon as the soil can be worked in spring and not after May 1st, sow onion seed in 12 to 15 inch rows, leaving out every 10th row as a weed alley, if preferred. One ounce of seed plants 150 feet and 4 to 5 pounds plants an acre. Seed should be covered firmly one-fourth inch deep. Quantities of manure had best be applied in the year before the planting and much commercial fertilizer, high in potash, harrowed in immediately before seeding. Begin cultivation as soon as the plant can be seen; cultivate frequently and when convenient thin to a stand of two to four inches.

**AUSTRALIAN BROWN** 110 Days

Bulbs 2 to 3 inches; clear amber brown, deep, flat with white flesh; flavor very strong.

**BOTTLE OR JUG** 110 Days

Long and narrow, about 2 inches thick; color light and rather faded in appearance; mild flavored. We have the genuine stock.

**JAPANESE OR EBENEZER** 110 Days

Used mostly for growing sets. One of the best keeping onions on the market. Does not run to seed readily. Bulbs 2 to 3 inches, deep flat in shape, deep yellow and very firm, with thick skin.

**MOUNTAIN DANVERS** 100 Days

Bulbs three-quarter globe shape, slightly flattened at the base; dark yellow and medium early. Productive and of good shipping quality.

**PRIZETAKER** 104 Days

Very productive, large sized onion, especially good for fall marketing. Bulbs globe shaped, light yellow in color, with white flesh of mild flavor. For best results plant this variety in beds and transplant.

**RIVERSIDE SWEET SPANISH** 105 Days

A large, well shaped onion, weighing from 1 to 3 pounds, unusually mild but still retaining its genuine onion flavor. Planted at the proper time and thoroughly cured it is a good keeper and will ship as well as any other shipping onion. To produce larger size they should be thinned 6 to 8 inches between plants.

**YELLOW DUTCH OR STRASBURG** 102 Days

Used principally for growing onion sets. Bulbs medium sized, pure yellow, flat, with fine grained hard flesh, which is white and fairly mild. Productive and an excellent keeper.

**YELLOW FLAT DANVERS** 102 Days

One of the most popular for growing sets. Bulbs 2 to 3 inches, bright yellow, flat; good keeper.

**YELLOW GLOBE DANVERS** 116 Days

Bulbs medium large, globe shaped, yellow with white flesh, firm and hard; good keeper.

**GOLDEN GLOBE — SEMI-BOTTLE ONION** 118 Days

Popular for growing globe-shaped sets of excellent keeping quality; very productive. Bulbs strongly oblong-globe, or bottle neck in shape, rich golden yellow; firm and hard.

**YELLOW GLOBE, OHIO OR MICHIGAN** 112 Days

Bulbs medium large, globular, with somewhat flattened bottom; pure yellow in color with hard, solid flesh; of excellent keeping quality.

## ONION — Continued

**YELLOW GLOBE, SOUTHPORT**

116 Days

A large, perfectly shaped globe onion and an excellent one for keeping throughout the winter. A very heavy cropper, a good dark yellow color and handsome in appearance.

**LARGE RED WETHERSFIELD**

104 Days

Bulbs 2 to 2½ inches thick, flat, deep red; flesh pinkish-white and very firm. Used extensively for growing sets.

**RED GLOBE, SOUTHPORT**

115 Days

A perfect globe shape, deep red skin and red flesh tinted white. Skin is thin, tough, close fitting over medium thin layers of firm, fine grained, strongly flavored flesh. Makes a medium large bulb, averaging 2½ to 3 inches in diameter. One of the best winter keepers.

**WHITE PORTUGAL OR SILVERSKIN**

100 Days

A medium thick, flat shape when mature, averaging 3 inches; white skin and flesh, sometimes green tinted; thin layers of firm, crisp, fine grained flesh, quite mild in flavor. Skin is fairly tight and tough. Stores well for a white onion. Used mainly for growing onion sets and small pickling onions.

**WHITE GLOBE, SOUTHPORT**

112 Days

Bulbs round and of good size; solid, pure white skin, thin and brittle. Good for winter storage. Also used by market gardeners for early bunching.

**WHITE SWEET SPANISH**

112 Days

Bulbs large, globular shape with small neck; pure white. Flesh clear white, firm and mild. Very attractive and a fair keeper.

**CRYSTAL WHITE WAX**

90 Days

This variety is popular in the south where the transplanting method of culture is practiced. A large, beautiful, silvery white skinned variety of handsome, flat shape and of very fine flavor and quality.

**MICHAEL-LEONARD'S BUNCHING ONION**

Grows 14 to 18 inches high, the pure white part extending 2 to 3 inches up the stalk; flavor excellent. This variety stands the heat well and will stay in bunching condition a long time. Not recommended for large onions.

**MAMMOTH SILVER KING**

96 Days

The largest of the flat white types. When mature the bulbs are large, thin and flat; pure white skin and flesh, very mild, fine grained and tender. A poor keeper.

**WHITE LISBON**

A variety grown largely as a bunching onion. When mature the round, white bulbs are about 3 inches in diameter.

**WHITE PEARL, EXTRA EARLY**

90 Days

A very fine Italian variety that grows quickly to a good marketable size. Very popular, particularly in the south. The bulbs are round and flattened with a delicate, pure white skin.



**ONION — Continued****WHITE QUEEN**

92 Days

A fine, early, silver-skinned variety of beautiful form and rapid growth, possessing fine keeping qualities.

**WHITE WELSH**

A very hardy perennial variety of onion used only for bunching or early green onions. Seed may be sown in late summer or early fall for early spring onions.

**YELLOW BERMUDA, STRAW COLORED**

90 Days

A pale or straw colored onion grown extensively in the Bermudas and southern part of the United States for early shipping to northern markets.

*See page 61 for Onion Sets.*

**PARSLEY**

**CULTURE.** Parsley used for garnishing and for seasoning can be planted as soon as the soil can be worked in spring. Cover the slow germinating seed one-fourth inch deep in 12- to 18-inch rows. One-fourth ounce sows 100 feet and 3 to 5 pounds plant an acre. To improve the appearance of the crop, trim the plants with a sickle 2 or 3 times during their growing season and at the approach of winter transplant to cold frames or a sunny window. Parsley may be mulched with coarse litter and wintered for spring use till the new crop begins.

**CHAMPION MOSS CURLED**

Leaves are a uniform dark green color, very finely cut and so closely curled as to resemble bunches of moss. One of the most useful and decorative sorts; fine for bunching.

**DOUBLE CURLED**

The standard sort for outdoor culture; also highly prized by market gardeners for the greenhouse.

**HAMBURG OR ROOTED**

Mostly grown for the thick, fleshy roots. The roots are nearly white in color, growing about 6 inches long and about 2 inches thick around the neck and gradually tapering toward the base. The flesh is white and somewhat dry. Used for flavoring soups, stews, etc.

**PLAIN OR SINGLE**

Leaves flat, deeply cut but not curled. Often preferred on account of the very dark green color as well as the hardiness of the plant and its superiority for flavoring.

**PARAMOUNT**

A new and improved triple-curved variety with unusually rich dark green foliage tightly curled. Ideally suited for home and market gardens.

## PARSNIP

**CULTURE.** Plant Parsnip seed as early as the soil can be worked in spring and do not cover this slow germinating seed deeper than one-fourth inch. Use 18- to 24-inch rows, thinning the plants to a 4-inch stand. One-half ounce of seed sows 100 feet and 3 to 5 pounds plant an acre. This crop requires the entire season to mature, and as frost improves the roots, they may be left in the ground all winter. Both as to quantities and its feeding values, the Parsnip is a valuable stock feed.

### IMPROVED HOLLOW CROWN

Roots 12 to 16 inches long, white smooth, tender, sugary and of most excellent flavor. Very hardy and will keep through winter without protection.

### GUERNSEY IMPROVED

Roots white, 12 to 14 inches long, very tender with a smooth, clean skin. The variety is easily distinguished by the leaves growing from depression on top or crown of the root.

### WHITE QUEEN

Similar to Improved Hollow Crown. Free from side roots and very white; an excellent market variety.

## PEAS—SMOOTH SEED

**CULTURE.** All varieties of Peas, regardless of height, may be grown successfully without a trellis or support. As Peas vary in height from 1 to 6 feet, it follows that the distances in the row and apart in the row should vary. Dwarf or half dwarf varieties are best planted in double or companion rows 6 inches apart to support and shade each other in their growth; then leave a space of 18 to 30 inches, according to height of the variety and repeat the double row. The tall varieties that may be given support are planted in a single row, the space between the rows somewhat less than the height of the variety. Drop 10 to 20 dwarf peas to the double row or 6 to 10 tall peas to the foot of row, using 2 pounds to 100 feet and 150 to 180 pounds to the acre. Plant all Peas about 5 inches deep in soil that has been deeply plowed, which gives the Peas the cool, damp climate they prefer. Lightly harrow or rake the soil when the Peas should be breaking through and continue to cultivate until the vine stops the work. All Peas stand some frost and may be planted as soon as the soil may be worked in spring. Peas should be planted frequently for a succession. The early varieties are planted in August for a late autumn crop. For quality's sake pick Peas before they crowd the pod and pick all pods as rapidly as produced to somewhat extend the plants bearing. As all varieties of Peas lose their characteristics when left without that selection given by expert seedsmen, it is necessary to go to a reliable source for seed peas.

**NOTICE** — The number of days given is taken from our trial ground records made during the season of 1932 in Wisconsin. Weather conditions, variations in soil and cultivation, as well as difference in latitude, will make either a longer or shorter period of growth.

### ALASKA WILT RESISTANT

52 Days

Well known and extensively used, especially by canners. Very early and when carefully grown uniform in ripening. Vine is strong and vigorous, 2 to 2½ feet high, of a peculiar light green color; pods 2¼ to 2¾ inches long, straight and blunt at the end, and light in color. Seed round, blue and slightly pitted. Our seed is now all of the finest wilt resistant type.

### ALASKA WILT RESISTANT H.F. 30

52 Days

Our own introduction. This strain is more productive, has better color and flavor than the Alcross strain. Canning test made by Wisconsin Experiment Station during 1937 showed that this strain outyielded the best Alcross strain by 20%, and the canned Peas rated better in color.

## PEAS — SMOOTH SEED — Continued

**AMEER OR CLAUDIT**

60 Days

Resembling the Alaska in appearance, 3 feet in height with pale green foliage. Pods 3 inches in length, pointed, dark green in color. Seed blue, dented and medium pitted.

**FIRST AND BEST OR EXTRA EARLY**

54 Days

Early, productive and hardy with a strong vigorous vine, which is light in color and uniform in growth, 2½ to 3 feet in height and bearing straight pods 2½ to 2¾ inches long, round, light in color and blunt at the ends. Seed round, rather small and white in color.

**LAXTON'S SUPERB OR EARLY BIRD**

60 Days

A hardy early variety, growing 18 to 20 inches in height, with dark green, 4-inch, semi-broad, pointed pods of fair quality. Desirable as a gardener's first crop pea, standing very early planting. Seed dark green, dimpled.

**MAMMOTH MELTING SUGAR, WHITE SEEDED EDIBLE POD**

72 Days

Large edible pods, 4 to 4½ inches long and 1⅛ inches broad. Vine grows to a height of 48 inches. The seed is large and a creamy white in color.

**MAMMOTH LUSCIOUS GRAY SEEDED**

72 Days

Like Mammoth Melting Sugar except that it is gray seeded and purple blossomed.

**MAMMOTH PODDED EXTRA EARLY**

60 Days

An early, large podded, productive sort for home and market gardens. Vine 3 feet in height, medium heavy, and deep green in color. Pods 3½ inches long, light to medium green, broad, round and blunt, and tapering slightly from blossoms to stem end; contain 6 to 7 peas of fair quality. Seed round, dimpled, cream colored.

**MARROWFAT, WHITE**

78 Days

Vines hardy, strong, vigorous and bearing broad, thick, leathery pods near the top of the vine, which contain peas of a fair quality. Vine 50 to 60 inches in height. Foliage light green in color; pods 3 inches long, blunt and light green in color. Seed large, smooth, white.

## PEAS—WRINKLED SEED

**ALDERMAN OR DARK PODDED TELEPHONE**

70 Days

A large podded pea of the Telephone type, very robust and vigorous as to vine, which attains a height of 48 inches; foliage medium green. Pods 5 inches long, broad, pointed, dark green in color. Seed green, wrinkled, large.

**AMERICAN WONDER**

57 Days

Vigorous vines with a luxuriant foliage, growing from 12 to 14 inches high. On account of its dwarf habit of growth it is very desirable for private garden use. Pods are light colored, straight, round, about 2½ inches long and blunt at the end. Seed is wrinkled, green, medium in size and square at the ends.



## PEAS — WRINKLED SEED — Continued

**BLUE BANTAM**

60 Days

An especially dark green strain of Laxtonian.

**CHAMPION OF ENGLAND**

76 Days

Strong and vigorous in growth, 54 to 60 inches in height; foliage medium green. Pods  $2\frac{1}{2}$  to 3 inches long, blunt, and medium dark green in color. Seed large, green, very much wrinkled.

**DWARF GREY SUGAR**

66 Days

The old variety of the edible podded sort and used in no other way. Grows about  $2\frac{1}{2}$  feet high and is remarkable for its earliness. Pods are broad, flat and crooked, containing 5 to 6 peas. Seed is brown and wrinkled.

**EVERBEARING**

76 Days

Vigorous and branching in habit and growth; height 3 feet. Pods  $2\frac{3}{4}$  to 3 inches long, broad, light colored and blunt. Seed green, wrinkled, large in size.

**MC LEAN'S LITTLE GEM**

62 Days

Strong and vigorous in growth, producing vines from 22 to 24 inches in height; dark foliage. Pods are almost straight,  $2\frac{1}{2}$  to  $2\frac{3}{4}$  inches long, light in color and blunt at the ends. Seed is green, wrinkled and medium in size.

**GRADUS OR PROSPERITY**

62 Days

A standard, early, large podded variety, very popular with market gardeners. Height 3 feet. Vine and foliage moderately heavy and medium green. Pods medium green,  $3\frac{3}{4}$  inches long, semi-round, straight and pointed, containing 6 to 8 large, very sweet, medium green peas. Moderately productive and of high quality.

**HUNDREDFOLD**

61 Days

Vines 18 inches tall, dark green, with very attractive large pods; excellent for home garden or shipping.

**LAXTON'S PROGRESS**

58 Days

Dark green peas, sweet and luscious. The dwarf, vigorous vines average 18 inches in height and carry enormous crops of large, deep bluish-green pods. These measure 4 to  $4\frac{1}{2}$  inches long and are tightly packed with 8 to 10 luscious peas.

**LAXTONIAN**

58 Days

Vines vigorous and productive, growing to a height of 18 inches; foliage dark green. Pods about 4 inches in length, dark green, straight and pointed. Seed light green, large wrinkled, flattened and irregular in shape.

**LITTLE MARVEL**

60 Days

An extra fine dwarf sweet pea. Pods somewhat larger than Nott's Excelsior. A fine variety for either private or market garden. Height, 16 to 18 inches; foliage and pods very dark green. Pods 3 inches long, nearly round and square ended, containing 7 very dark green peas of high quality. Very productive. Seed light green, medium size, squared, wrinkled.

## PEAS — WRINKLED SEED — Continued

**MAMMOTH PODDED MIDGET**

50 Days

Height of vine 15 inches; pods  $4\frac{1}{2}$  inches long, containing 7 to 8 large dark green peas.

**NOTT'S EXCELSIOR**

50 Days

Resembling Gems in habit but more dwarf and uniform in growth. Height 14 to 17 inches with rather light foliage. Pods are light in color, round, about  $2\frac{1}{2}$  inches long, blunt at the ends. Seed green, wrinkled, medium in size and square at the ends.

**PERFECTION**

69 Days

An excellent canners' sort. Vine 30 inches tall, medium dark green, fairly heavy growth. Pods 3 to 4 inches, medium green, slightly curved and blunt.

**POTLATCH**

70 Days

Strong, vigorous vines of even growth, 24 inches in height, with luxuriant, dark foliage. bearing pods medium green in color, 4 to  $4\frac{1}{2}$  inches in length, broad and pointed at the ends. Seed green, wrinkled, large in size.

**STRATAGEM**

72 Days

A vigorous, hardy and luxuriant vine, bearing large pods which contain peas of excellent quality. A heavy cropper although it has a tendency to sport. Vines 22 inches; foliage dark green; pods  $4\frac{1}{2}$  inches long, straight, broad, pointed, dark green in color. Seed very large, green, wrinkled.

**SUTTON'S EXCELSIOR**

62 Days

Similar in habit of growth to Nott's Excelsior but bearing very large, broad pods well filled with large peas. Very tender and of the most delicious flavor. Vines 18 to 20 inches high, medium light in color with pods  $3\frac{1}{2}$  to 4 inches long, light in color and blunt at the ends. Seed green, wrinkled, medium in size.

**DWARF TELEPHONE OR DAISY**

70 Days

Vines 20 to 22 inches high with rather coarse foliage, medium light green, bearing pods broad, straight and about 4 inches long, pale green in color and well filled with peas of excellent flavor. Seed pale green, large, wrinkled.

**TELEPHONE**

70 Days

Same as Alderman.

**THOMAS LAXTON**

60 Days

A very popular variety. Height  $2\frac{1}{2}$  to 3 feet; vine and foliage moderately stout, medium green. Pods medium green,  $3\frac{1}{2}$  inches long, straight, nearly round and square ended, containing 7 medium dark green peas of superior quality. Seed large, cream colored, wrinkled.

**WORLD'S RECORD**

60 Days

An improved type of Gradus, being slightly earlier, more dwarf, true to type and productive. Height 2 to  $2\frac{1}{2}$  feet. Vines moderately stout, medium green. Pods medium green, 4 inches long, very broad, pointed and well filled with 7 to 9 very large, dark green peas of exceptional quality. Seed large, cream and green, wrinkled.

**YORKSHIRE HERO**

70 Days

Hardy, productive and upright in growth with dark green foliage; 28 inches in height. Pods  $2\frac{1}{2}$  to 3 inches long, blunt, light green in color. Seed large, green, very much wrinkled.

## PEPPER

**CULTURE.** The pods of the pepper are used in sauces, salads, soups or as a seasoning and the large mild varieties called mangoes are eaten from the hand or variously stuffed and prepared with cabbage, tomatoes or meat. The pods of green peppers are green until in ripening they turn red or yellow, according to the variety. Start pepper in hotbeds, maintaining a temperature of 70 degrees and in other ways treat like a tomato. Set out-of-doors after frosts in 30-inch rows, giving each plant 18 inches in a row. One ounce of seed gives 2,000 plants and one-quarter pound plants an acre. Number of days given are from setting plants to ripe fruit.

### ANAHEIM CHILI

80 Days

Plant 2 feet high, medium light green and medium heavy growth. Fruit 1 x 7 inches average, bright red from a deep green, slim, tapered to a point. Quite productive and medium hot in flavor. Largest of the milder chilis. Used as an all purpose type.

### BANANA OR LONG HOT YELLOW

70 Days

Plant 2½ feet high, medium light green, upright and fairly bushy growth. Fruits long, slim, 1½ x 6 to 7 inches, ranging in color from a deep yellow to a bright orange to a bright red as they ripen, and tapering to a point. Very prolific, early, quite thick walled for the type and hot in flavor.

### BELL OR BULL NOSE, HOT

60 Days

The earliest of the "bell" type peppers. The ribs are quite pungent, while the rest of the fruit is mild. The medium sized square fruits are deep green when immature and scarlet when ripe.

### BELL OR BULL NOSE, SWEET

60 Days

Plant 2½ feet high, medium light green, upright, strong growing, bushy. Fruits 3 x 4 inches, squared, usually four lobes, inverted bell shape; flesh quite thick, mild in flavor and is a good garden strain for salads and stuffing.

### CALIFORNIA WONDER

76 Days

Plant 2½ feet high, medium light green, making a strong, upright growth. Fruits are large, 3½ to 4 x 5 inches, squared, usually four lobes, very thick walled, sweet and mild in flavor. From a deep green to a bright red in color. The most attractive appearance and thick wall make it an excellent type for stuffing.

### LONG SLIM CAYENNE

70 Days

Same as Mammoth Long Cayenne except in size; ½ inch in diameter, 4 to 5 inches long.

### MAMMOTH LONG CAYENNE

70 Days

A long, slim, pointed pod, bright red in color when ripe, and extremely strong and pungent. Size ¾ to 1 inch in diameter, 5 to 6 inches long.

### SMALL OR SHORT CAYENNE

70 Days

Same as Mammoth Long Cayenne except in size; ¼ inch in diameter, 1 to 1½ inches long.

### CHINESE GIANT

80 Days

Plant 2½ to 3 feet high, medium light green, strong, bushy growth. Fruit is large, 4 x 5 inches, squared, usually four lobes, deep green to a bright red color. Quite productive with a good thickness of side wall. Sweet and mild in flavor and used for a stuffing type. Very attractive in appearance.



## PEPPER — Continued

**GOLDEN QUEEN****80 Days**

Stalk 2 feet; medium dark, heavy growth, very bushy. Fruits medium large, 3 x 4 inches, slightly tapered, mostly four lobes, medium thick wall, dark green to a golden yellow when ripe. Mild in flavor.

**HARRIS EARLY GIANT****65 Days**

Stalk 2 feet; medium dark with a rather spare leaf growth. Fruits are medium large, 3 x 4 inches, squared, usually four lobes, medium thick side wall, bright cherry red color. Sweet and mild.

**NEAPOLITAN****60 Days**

Stalk 2½ feet; dark green, upright, treelike growth. Fruits 2 x 4 inches, tapered slightly, usually four lobes, thin wall, deep green to a bright yellow to a bright red when ripe. Sweet, mild flavor and quite a heavy producer.

**PIMENTO****75 Days**

Plant 2½ feet; medium dark, upright and very bushy. Fruits 2 x 2½ inches, heart shaped, smooth, without lobes or side ridges, deep green to brightest red. Very sweet and mild and a heavy producer. Excellent canning variety.

**RED CHILI****85 Days**

Plants low growing and bushy. Fruits borne upright, very numerous, 2 to 2½ inches long, ⅜ inch thick, tapered; waxy pale yellowish-green, becoming rich red; very pungent.

**RUBY GIANT****75 Days**

An excellent, large, mid-season variety for home and market gardens. Plant vigorous, erect, very productive. Fruits slightly tapered, four lobes, deep green changing to bright red; flesh thick, sweet and mild.

**RUBY KING****70 Days**

Plants are about 2½ feet high, vigorous, compact and productive. Fruits are 4 to 4½ inches long and of deep green color when young, bright red when ripe. The flesh is thick and mild flavored. One of the best varieties for mangoes or stuffed peppers.

**SUNNYBROOK OR TOMATO PEPPER****75 Days**

Fruits 2½ to 3 inches in diameter and 2 to 2¼ inches deep from stem to blossom end. The skin is smooth, glossy and of a brilliant scarlet. The flesh is unusually thick, in well developed fruits measuring ⅝ inch in thickness.

**SWEET MOUNTAIN****75 Days**

Plant 30 inches tall with medium light, upright bushy growth. Fruit medium large, 2½ x 5 inches, squared, slightly tapered, deep green to a very bright red in color, usually 3 or 4 lobes, high side ridge, medium thick side wall. One of the sweetest and mildest peppers.

**WORLD BEATER****73 Days**

Fruits four-lobed, 5 inches long by 3½ inches in diameter; flesh very thick and mild. Exceedingly productive and a good shipper.

## PUMPKIN

**CULTURE.** The finer varieties of pumpkins are used for pies and the coarser ones for stock feeding. While the pumpkin may be grown very much as cucumbers are grown in a garden, they are more frequently planted in the field with corn, where several seeds are dropped in each fourth hill. Planted alone, six to ten seeds are covered one inch deep in hills eight to ten feet apart and thinned to two to four plants to the hill. One ounce plants twenty-five hills and two to four pounds of seed generously plants an acre. Number of days given is from planting to ripe fruit.

**CONNECTICUT FIELD**

120 Days

The standard cornfield variety, producing large, orange colored pumpkins which average 25 pounds in weight, round and flat on ends with smooth, hard rind. Flesh is thick, dry and sweet — excellent for canning and stock feeding.

**GOLDEN CUSHAW**

112 Days

The skin is golden yellow; vines very prolific; fruits rather small and slender.

**GREEN STRIPED CUSHAW**

115 Days

Fruits very large with crooked neck. Color creamy white, irregularly striped or traced with green. Flesh light yellow, very thick, rather coarse but sweet. Very productive.

**WHITE CUSHAW**

112 Days

It is similar to the Green Striped strain except somewhat smaller and the skin is pure white; also the neck is shorter than in other Cushaws.

**LARGE CHEESE OR KENTUCKY FIELD**

120 Days

Used largely for canning and stock feeding. The fruits are flat, dull orange; flesh yellow, thick and tender.

**MAMMOTH POTIRON OR KING OF THE MAMMOTH**

120 Days

The flesh and skin are of a bright golden yellow color, flesh fine grained and of excellent quality. This enormous variety has been grown to weigh 100 pounds.

**MAMMOTH TOURS**

120 Days

Fruits very large in mottled shades of green and yellow, long oval, thick shell; thick flesh but rather coarse grained and stringy. Used as a stock food.

**JAPANESE PIE**

115 Days

Shaped somewhat like the Cushaws and grows to a large size; skin deep green with dark stripes; flesh deep yellow and of high quality. Seeds sculptured like Chinese letters.

**SMALL SUGAR OR PIE**

115 Days

A rather small but handsome variety. Shape round; skin deep orange colored; flesh fine grained, sweet flavored. Superior for pies.

## PUMPKIN — Continued

## TENNESSEE SWEET POTATO

110 Days

Fruits are bell shaped of medium size with white skin slightly mottled with light green stripes, averaging 15 pounds in weight. Flesh is creamy white, very thick, fine grained and sweet.

## WINTER QUEEN OR LUXURY

105 Days

The shape is very much like Small Sugar Pumpkin but larger in size. The color is orange and the entire fruit is covered by a fine, grey netting. It is one of the sweetest varieties, early and prolific. Used chiefly for pies.

## RADISH

CULTURE. Plant Radishes on a light soil if a choice is possible and every second week for a succession from the time the soil can be worked in spring till the first light frost. Plant in 12 to 18 inch rows, cover the seed one-half inch deep and permit ten radishes to grow to the foot; use 8 to 12 pounds of seed to the acre. Radish seed, which germinates quickly, may be sown with some slow germinating seed that the cultivation of that crop may begin the earlier or the quicker growing radish may be grown between the rows of some slow growing crop that later requires considerable space. Number of days given is from planting to roots of bunching size.

## CINCINNATI MARKET

28 Days

Tops short and small; roots 6 to 7 inches long, pointed, bright scarlet; flesh white, crisp and mild.

## CRIMSON GIANT

30 Days

Largest of the round reds. Tops medium small, very upright with medium light, short stem. Roots go up to 1½ inches without being pithy, globe shaped, deep red color, rather thick skin. Flesh white, tender and crisp.

## EARLY SCARLET GLOBE

24 Days

This excellent, bright, rich scarlet colored, globe shaped radish is the finest for forcing as it will bear the heat required for forcing without becoming pithy or losing its excellent flavor. Has a small top and certainly is the variety needed by the gardener who forces for early market. Also an excellent sort for outdoor planting.

## EARLY SCARLET TURNIP

26 Days

Early variety for forcing or outdoor culture. Tops medium; roots small, turnip shaped, almost round, bright scarlet in color, crisp and tender.

## EARLY WHITE TURNIP

24 Days

The earliest white variety. Tops medium large; roots turnip shaped; flesh white, crisp and tender.

## FRENCH BREAKFAST

25 Days

Popular home garden and early market variety. Tops medium small; roots 1½ to 2 inches long, thicker towards bottom, scarlet with white tip; flesh white, crisp and of excellent quality.

## IMPROVED CHARTIER

34 Days

Decidedly distinct in appearance, the color at the top being crimson running into pink about the middle and from thence downward it is a pure waxy white. Roots 7 to 8 inches long; flesh crisp and tender.



## RADISH — Continued

### LONG BRIGHTEST SCARLET WHITE TIPPED 25 Days

This is the earliest of the long red varieties. Tops medium large; roots  $4\frac{1}{2}$  to 5 inches long, tapering to a point; flesh white and crisp.

### LONG SCARLET SHORT TOP 27 Days

This bright scarlet, small topped sort is about 6 inches long, is uniformly straight, smooth, brittle and crisp, and is a standard and excellent variety for private garden or market use.

### LONG WHITE VIENNA OR LADY FINGER 27 Days

A very excellent white variety with long, very smooth white roots which are crisp and tender. One of the most desirable of the white summer sorts.

### SAXA 22 Days

Principally a forcing sort, but also used for out-of-doors planting. Tops very small; roots small, spherical,  $\frac{7}{8}$  inch in diameter, bright scarlet in color; flesh white, crisp and mild.

### SPARKLER WHITE TIPPED 26 Days

Similar to Scarlet Turnip White Tipped as to size and time of maturity. The root, however, is more round or ball shaped, and the white extends farther up on radish.

### WHITE ICICLE 27 Days

Without doubt the finest early white variety and very popular with home gardeners. Tops medium; roots  $5\frac{1}{2}$  to 6 inches long, tapering, pure white, very crisp and mild.

### WHITE STRASBURG 39 Days

Large, showy, half long sort. Roots 5 to 6 inches long,  $1\frac{1}{2}$  inches thick at the shoulder, tapering to a point; flesh white, firm and mildly pungent.

### WHITE STUTTGART 41 Days

Tops medium large; roots top shaped, 3 to  $3\frac{1}{2}$  inches long, 3 to 4 inches in diameter, white and mildly pungent. An excellent variety for late summer and can be used for winter storage.

### WHITE TIPPED SCARLET TURNIP 25 Days

One of the handsomest of the turnip radishes and a great favorite in many large markets for early planting outdoors. Roots slightly flattened on the under side; color very deep scarlet with a white tip; flesh white and of the best quality.

## RADISH — WINTER VARIETIES

The winter Radish is sown at late turnip planting time and used in the autumn or stored for winter like the turnip.

### CALIFORNIA MAMMOTH WHITE 61 Days

Large, heavy tops, light green in color. Roots large, 3 x 10 inches, stump rooted, thickest at the bottom end; small tap root. White skin; white flesh, crisp and hard but rather coarse grained and strongly flavored.

## RADISH — WINTER VARIETIES — Continued

### LONG BLACK SPANISH

62 Days

One of the best winter varieties. Tops large and heavy; roots 7 to 9 inches long, 2 inches in diameter and tapering to a point; skin black; flesh white, very firm and pungent.

### ROUND BLACK SPANISH

60 Days

Roots round, sometimes top shaped, 3 to 4 inches in diameter; skin black; flesh white, firm, crisp and highly flavored. An excellent sort for winter as the roots keep a long time.

### ROSE CHINA WINTER

53 Days

Roots cylindrical or largest at the bottom, tapering abruptly to a small tip; skin very smooth and of a bright rose color; flesh firm, crisp and tender, quite pungent.

### WHITE CHINA OR CELESTIAL

60 Days

The root is 8 inches long, cylindrical, with beautiful white skin and flesh so white as to attract attention even among the other white varieties. The flesh is very tender and of excellent quality.

## RHUBARB

**CULTURE.** Rhubarb succeeds best in deep soil. The richer its condition and the deeper it is stirred the better. Sow in drills an inch deep and thin out the plants to six inches apart. In the Fall transplant the young plants into very highly manured and deeply stirred soil, setting them 4 to 6 feet apart each way and give a dressing of coarse manure every spring. The stalks should not be plucked until the second year and the plant never allowed to exhaust itself by running to seed.

### VICTORIA

Stalks large, rich red in color, very thick and tender. The best variety.

## SALSIFY OR VEGETABLE OYSTER

**CULTURE.** Salsify succeeds best in a light, well enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnips. The roots are perfectly hardy and may remain out all winter. Store a quantity for winter use in a pit or cellar in damp earth or sand.

### MAMMOTH SANDWICH ISLAND

Roots 7 to 8 inches long, 1 to 1½ inches thick; skin almost white; flesh mild and delicately flavored.

## SORREL

**CULTURE.** Sow in spring in drills 18 inches apart, in a rich soil, and keep the flower stems cut off as they appear. Remains in the ground, needs to be taken up and divided only once in 4 or 5 years. To be cut and cooked precisely like spinach. Also used for soups. Inasmuch as the hot sun tends to increase its acidity a Northern exposure is preferable.

### LARGE LEAVED FRENCH

Standard home garden and market sort, producing large, thick, bright green arrow-shaped leaves of mildly acid flavor.

## SPINACH

CULTURE. As early as the soil can be worked, sow it one-half inch deep in fourteen-inch rows, using one ounce of seed to one hundred feet, and in the second week will appear a tiny plant with two very narrow leaves that do not resemble the true leaves that follow. Cutting should begin forty-five days from sowing. It is impossible to put spinach on too rich soil, and nitrate of soda is used on it with profit.

**BROAD FLANDERS****43 Days**

Standard home and market garden sort, well adapted for canning. Plants large and vigorous; leaves deep green, smooth, broad and thick.

**GIANT NOBEL THICK LEAF****42 Days**

Plants large, vigorous and slow to run to seed. Very heavy yielder. Leaves medium green, thick and tender. The best thick leaved variety.

**JULIANA****46 Days**

Plants compact and dense, growing close to the ground; leaves rounded with short stems, thick, crumpled, very dark green. Slow in producing seed stalks.

**KING OF DENMARK****44 Days**

The best long season spinach, remaining two weeks longer than others before bolting to seed. Plant vigorous and spreading; leaves large, rounded, crumpled and blistered, deep green in color.

**LONG STANDING****42 Days**

Leaves are smooth and very dark, rich green. Very popular with market gardeners.

**NEW ZEALAND**

This branching plant—a spinach in its use but not in its growth—frost-kills but grows luxuriantly in the summer heat. Plant these large seeds three in a hill, 3 x 2 feet apart or start the plant under glass and transplant.

**OLD DOMINION (BLIGHT RESISTANT)****40 Days**

A cross between Virginia Blight-Resistant Savoy and King of Denmark. Large, dark green, heavily crumpled leaves. Long standing and resistant to mosaic. Used mostly for an early spring crop.

**PRICKLY WINTER****43 Days**

A very hardy variety and will withstand the severest weather with only a slight protection of leaves or straw. The seed is prickly; leaves triangular, oblong or arrow shaped. It is used extensively for fall sowing.

**SAVOY LEAVED BLOOMSDALE****39 Days**

One of the best to plant in autumn for early spring use. Plant of upright growth with narrow, pointed leaves, which are curled like those of the Savoy Cabbage. It grows quickly to suitable size for use but soon runs to seed.

**SAVOY BLOOMSDALE BLIGHT RESISTANT (VIRGINIA SAVOY)****39 Days**

Used principally in sections where blight occurs. Similar to Savoy Leaved or Bloomsdale but somewhat smoother in leaf and inclined to bolt to seed earlier.



## SPINACH — Continued

## SAVOY BLOOMSDALE LONG STANDING

42 Days

Similar to the older type but with a thicker, more round and lighter colored leaf. Very slow to bolt to seed.

## VICTORIA

45 Days

An excellent sort which forms a very large, exceedingly thick, dark green leaf somewhat curled in the center.

## VIKING

44 Days

This new variety is excellent for market gardens and canning. Plant large, spreading, vigorous, long standing and heavily productive. Leaves very large, thick, dark green.

## VIROFLAY OR THICK LEAF

43 Days

Grows very rapidly forming a cluster of large, very thick, slightly wrinkled leaves of fine color and quality. Recommended for market gardeners.

## SQUASH—SUMMER VARIETIES

CULTURE. The directions for the planting of Cucumbers can be followed with slight modifications for Squash or Cymling. Plant the Summer Squash in hills 4 feet apart and use before mature. Plant the Winter Squash in hills 6 to 8 feet apart; handle without bruising and store in a dry, moderately warm place for winter. Plant the seed generously and thin to 2 or 3 plants to a hill. One ounce of seed plants 25 hills and 2 to 4 pounds plants an acre. The Squash is recommended either for the table or the feed lot. Number of days given is from planting to ripe fruit.

## GIANT SUMMER CROOKNECK

56 Days

This strain is a great improvement on the old variety of Crookneck. It is larger and better in every way.

## SUMMER CROOKNECK

50 Days

A standard early and productive summer variety. Fruits about a foot long, moderately warted and of a bright yellow color.

## EARLY WHITE BUSH, SCALLOPED

55 Days

Also called Cymling and White Patty Pan. It is the most popular of the white summer types of squash. The fruits are rather small, quite flat with ridged or scalloped edges. The vines are extremely prolific and disease resisting. Used when but a few days old they are very tender.

## MAMMOTH WHITE BUSH

56 Days

A large strain of the Early White Bush. The fruits grow to about one-third more size. It is a desirable strain, especially where a larger size is required for market.

## EARLY YELLOW BUSH, SCALLOPED

55 Days

It is similar in all respects to the Early White Bush except in the color of the skin, which is a golden yellow. It is not quite so prolific, nor is it as widely used.

## SQUASH — SUMMER VARIETIES — Continued

### GIANT STRAIGHTNECK

55 Days

A distinct improvement on the Crookneck strain as it packs to better advantage for shipping. Popular with market gardeners and shippers. Plant is of bush type; fruits thicknecked, heavily warted, straight, lemon yellow in color; flesh thick, light yellow.

### SWEET POTATO OR DELICATA

55 Days

Early and very prolific; of oblong shape. Ground color orange-yellow splashed and striped with very dark green. Although of small size the squashes are very solid and heavy while the quality is rich and dry.

### ITALIAN VEGETABLE MARROW

60 Days

A distinct variety of squash of bush form. Fruit grows to a length of about 20 or more inches, with a diameter of 3 to 4 inches; skin smooth, of a dark green color, marbled with yellow or with paler green. All through Italy, where the squash is grown, the fruits are eaten when quite young, sometimes even before the flower has opened.

### ZUCHINI, SMALL SHORT COCOZELLA

60 Days

Fruits weigh 3 to 4 pounds, nearly cylindrical, straight. Color medium green mottled with cream-grey and lighter green stripes; flesh very firm and of delicate flavor. Plant is of bush type.

## SQUASH—WINTER VARIETIES

### ACORN, DES MOINES OR TABLE QUEEN

58 Days

A trailing variety producing acorn-shaped fruit with a thin, distinctly ribbed, dark green shell; 6 inches long by 4½ inches in diameter. Flesh light yellow and bakes well.

### ARIKARA

95 Days

Long runner; quite heavy growth. Fruits are spindle shaped and tapered at both ends, medium large, 8 x 12 inches, smooth, thin, hard shell, pink in color with some stripe and blotch of pale green. Flesh is thick, fine grained, well flavored, quite dry and orange yellow in color. An excellent winter keeper.

### BANANA

110 Days

A prolific, oblong variety, 2½ feet in length by 6 inches in diameter, having a grey-green shell; solid dry flesh and small seed cavity. Rather late in maturing.

### BOSTON MARROW

100 Days

Particularly valuable for canning. Fruits large, commonly 10 to 12 inches through, almost spherical, usually a trifle flattened at blossom end; skin slightly roughened, rich orange; rind hard and brittle; flesh thick, salmon-yellow.

### BUTTERCUP

100 Days

A fine new squash of excellent quality, 4½ x 6½ inches in size. The outside color is green with stripes and spots of grey. There is a heart-shaped protuberance at the blossom end. The dry, thick flesh, texture and keeping qualities of this squash are excellent.

## SQUASH — WINTER VARIETIES — Continued

**DELICIOUS**

105 Days

Fruits broad top-shaped, commonly 7 to 8 inches long; skin very dark green, fairly smooth; rind thin but hard; flesh extremely thick, bright yellow, fine grained and dry, without fiber and of highest quality.

**GOLDEN DELICIOUS**

105 Days

Valuable for canners because of the high starch content of its flesh and the bright red-orange color of the exterior. In shape, size and season it is practically the same as the original Delicious.

**HUBBARD**

100 Days

The standard winter squash. Fruits large, heavy and moderately warted, shell dark bronze-green showing more or less light green markings toward blossom end; flesh bright orange-yellow, fine grained, thick and dry.

**BLUE HUBBARD**

110 Days

This excellent squash of the Hubbard type is light blue in color with hard shell and thick, fine grained flesh, which is very tender and by far the best flavored of the winter squashes. This variety is very popular in the east.

**KITCHENETTE HUBBARD**

100 Days

A small sized Hubbard. Fruits average 5 pounds, making it an ideal squash for the small family.

**RED OR GOLDEN HUBBARD**

100 Days

This is a very distinct sort of the shape and general character of the Hubbard but a little smaller; color rich orange-red instead of the dark olive-green.

**WARTY HUBBARD**

100 Days

Somewhat larger in size than the well known Hubbard and of equal quality but is more heavily warted and the shell is very dark green, almost black, in color. Our stock of this variety is exceptionally true.

**MAMMOTH CHILI**

110 Days

Grown for exhibition and stock feeding. Specimens have been grown to weigh 150 pounds. Fruits oblong; skin quite smooth but with broad, open netting and rich orange-yellow color

## TOBACCO

**CONNECTICUT SEED LEAF**

Hardy cigar variety, well adapted for growing in the middle and northern states.

**HAVANA**

An early variety used largely for cigar wrappers on account of the large leaves.

**WHITE BURLEY**

A prolific sort with long, broad, attractive leaves; used for fillers and wrappers.



## TOMATO

**CULTURE.** The Tomato requires one hundred days or more to mature from seed. As Tomatoes are killed by other than light frost, early Tomatoes should be started in hotbeds 2 months before they may be transplanted out-o.-doors. Three weeks later these plants may be potted or given a space of 4 by 4 inches in the hotbeds. Before setting in the field, the plants should be gradually exposed to the outside conditions and the quantity of water given them decreased. Transplant on a cloudy day if possible, and water freely. Nitrate of soda may be given each plant at this time with profit. A space of 4 by 4 feet should be given each plant in the field or more for robust varieties, except that where they are carefully pruned and trained, which is unnecessary, they may be planted as close as 2 by 2 feet. One ounce of seed gives 2,000 plants. The number of days given is from setting plants to ripe fruit.

### ACME

84 Days

Popular bright pink shipping tomato. Fruits solid, set in clusters.

### AVON EARLY

66 Days

A superior variety of the Earliana class for home garden and early market. Fruits uniform, deep scarlet red, medium sized, almost globular, smooth; flesh solid.

### BEAUTY

84 Days

Vines large and heavy; fruits large, solid, smooth, purplish-pink. One of the most popular large purple tomatoes.

### BEEFSTEAK OR CRIMSON CUSHION

90 Days

A wilt resistant, late, main crop variety for home and market garden use. Plant open in habit of growth, heavy, rather light green, vigorous. Fruits large, flat, scarlet, rather smooth.

### BISON

65 Days

Small, spreading, open growth with few leaves, 2 feet tall. Fruits medium small, 2 inches in diameter, flattened top globe. Bright red color; thin, tender skin, thin side wall, quite large seed cells, very juicy. Fruits set mostly at one time and are bunched around base of vine.

### BONNY BEST

75 Days

Vines strong and vigorous; fruit deep scarlet, ripening to stem; flesh firm. A productive and very desirable early and main crop variety.

### BREAK O' DAY

71 Days

A wilt resistant tomato that is nearly as early as Earliana and as productive as Marglobe. Its fruits are large, smooth, red and globular, very similar to Marglobe but usually larger. Used whole for salads or stuffed.

### BRIMMER

91 Days

Similar to Ponderosa, but larger, a single specimen often weighing 3 pounds. Fruit is solid and meaty, massive in size, delicious flavor, rich dark red color, and almost seedless.

### CHALK'S EARLY JEWEL

76 Days

We consider this one of the very best early tomatoes yet introduced. Vines vigorous and very productive. Fruit deep scarlet-red.

### DWARF CHAMPION

87 Days

A purplish pink variety forming a strong, erect, bushy plant 2 feet high. Often sold as a tree tomato. Fruit smooth, medium sized, fairly solid and of good flavor.

## TOMATO — Continued

**DWARF STONE**

85 Days

Strictly dwarf and treelike. Fruits bright red, flattened globe shape, a trifle over medium size.

**EARLIANA**

65 Days

A very popular early home garden variety. Fruits flattened, medium in size, deep-scarlet red, firm and fairly smooth.

**EARLY BALTIMORE**

Illinois University selection of Marglobe, thriving on all soils; smaller fruit, solid bright color, heavier yielder.

**EARLY DETROIT**

82 Days

Vines vigorous and productive. Fruit round and nearly globe-shaped, firm and purplish-pink in color. A splendid second early variety.

**GOLDEN QUEEN**

82 Days

Fruits large and smooth of a beautiful golden yellow, sometimes with a slight blush of red, as smooth and well shaped as the best of the red varieties and of superior flavor.

**GREATER BALTIMORE**

83 Days

Particularly valuable for canning; heavily productive. Fruits deep scarlet-red, large, deep but flat, smooth, very firm and solid.

**GROTHEN'S GLOBE**

73 Days

A new, early maturing, wilt resistant variety which is becoming popular in some sections for shipping. Similar to Break o' Day, but the fruits are of deeper scarlet and are free from objectionable yellow about the stem end.

**GULF STATE MARKET**

81 Days

The best of the early purple fruited varieties. In season with Early Detroit while fruit is larger, smoother, more globe-shaped, very solid, free from cracking and productive.

**ILLINOIS PRIDE**

Illinois University selection of Marglobe; larger, more solid, better shipper and producer on clay soil.

**JOHN BAER**

73 Days

An early red tomato similar to Chalk's Early Jewel; very productive.

**JUNE PINK**

67 Days

Vine makes a very scant leaf growth 2 to 2½ feet tall. Fruit averages 3 inches in diameter, slightly flattened tip and bottom with smooth, thin, tough skin and medium thick wall with five large seed cells. Earliest of the pinks.

**LIVINGSTON'S GLOBE**

82 Days

Of beautiful globe shape with quite a percentage of elongated (stem to blossom) fruits, which permits a greater number of slices being taken than with flat fruited sorts. Color a beautiful, glossy rose tinged purple.

**McGEE**

83 Days

Very productive, average size and bright crimson. Solid and of excellent flavor.

## TOMATO — Continued

**MARGLOBE**

80 Days

Resistant to nail-head rust and fusarium wilt. Large, perfect globe-shaped fruits of a beautiful scarlet color. Its spreading habit of growth enables it to bear in great abundance.

**NEW STONE**

84 Days

Vines vigorous and productive; fruits large, smooth, solid and deep red in color, very heavy. This is a favorite canners' variety.

**NORTON, WILT RESISTANT**

87 Days

Similar to Stone but bred for its resistance to fusarium wilt; possibly a trifle later than Stone.

**OX HEART**

90 Days

One of the largest of all tomatoes. Purple fruits often weigh up to 1½ pounds. Of distinct "ox heart" form, very solid, with few seed cells.

**PONDEROSA**

87 Days

A purplish-pink tomato of largest size. Vine vigorous and very productive; fruit very solid, fairly smooth and of good quality.

**PRAIRIANA**

Selection of Marglobe; resistant to fusarium wilt and productive in prairie soils and hot summers of Illinois. Developed at the University of Illinois. Fruit smaller than Marglobe but smoother, brighter color and heavier yielder in clay soil.

**PRITCHARD OR SCARLET TOPPER**

76 Days

Wilt resistant. Fruits large, smooth, globular, solid with thick walls and cross sections; color deep scarlet. Splendid home and market garden variety; excellent for shipping.

**RED HEAD**

74 Days

An exceptionally fine, large bright red variety. Fruit almost globe shaped, very solid. An excellent variety for the market gardener.

**RUTGERS**

72 Days

A recent development introduced by the New Jersey Agricultural Experiment Station. Fruits medium to large, similar in shape to Marglobe but slightly more flattened. Highly recommended as a second early maturing variety for canning and tomato juice.

**SAN MARZANO**

An Italian variety highly prized for manufacturing into paste and powder. Fruits distinct, 1¼ inches broad by 2½ to 3 inches long, flat sided and rounded at ends. Color bright scarlet; flesh thick, interior devoid of juicy pulp, and seeds comparatively few. Heavily productive in the northern states and in California.

**YELLOW OR GOLDEN PONDEROSA**

90 Days

Vines large and heavy; fruits very large, flat, deep yellow. A fine home garden variety.



## TOMATO—SMALL FRUITED VARIETIES

### YELLOW HUSK OR GROUND CHERRY 85 Days

Vine makes a spreading open growth, light green in color; fruit is small,  $\frac{3}{4}$  inch, round, yellow in color, and is enclosed in a thin, paper-like husk that loosens as fruit ripens. Used for pies and preserves.

### RED CHERRY 75 Days

Heavy growth, small leaf, heavy leaf growth, 5-foot vine. Fruits small,  $\frac{1}{2}$  to  $\frac{3}{4}$  inch, globe shape, bright red. Grows in clusters and is a heavy producer.

### RED PLUM 73 Days

A red fruited sort, resembling a plum in shape and size. Used as a novelty and for preserves.

### RED PEAR 75 Days

Fruits 2 inches long; pear-formed.

### YELLOW PEAR 75 Days

Like the Red Pear in all ways except color, which is a bright yellow.

### YELLOW PLUM 75 Days

Like the Red Plum in all ways except color, which is a bright yellow.

## TURNIP

**CULTURE.** While the main crop of Turnips is planted in July, more Turnips should be grown in early spring. Seed may be broadcast on the few soils freed of weeds but it is more advisable to sow in 1- or 2-ft. drills, cover less than one-half inch and thin to stand 6 inches apart in the row. Use 1 ounce of seed to 100 feet of row and 2 pounds to the acre. The Turnip requires one-half more seed when broadcast than in drills and a salad Turnip requires one-half more seed than the Turnip sown as a root crop.

### AMBER GLOBE 75 Days

One of the best varieties for a field crop for stock. Flesh yellow, fine grained and sweet; color of skin yellow with green top. Hardy, keeps well; a good cropper. Very popular in the south.

### COW HORN OR LONG WHITE 68 Days

This variety is pure white except for a little shade of green at the top. It is carrot-like in form, growing nearly half out of the ground and slightly crooked.

### EARLY SNOWBALL 43 Days

Medium large, light green tops. Roots are 3 to 4 inches, perfect globe shape; a fine tap root; pure white colored skin and flesh. Flesh fine grained and sweet. Good table type.

### GOLDEN BALL OR ORANGE JELLY 60 Days

Undoubtedly one of the most delicate and sweetest yellow fleshed turnips. Not of a large size but firm, hard and of most excellent flavor. Keeps well and is superior as a table variety.

### EXTRA EARLY PURPLE MILAN 40 Days

Tops medium, upright growing, strap leaved; roots 3 inches, white with purple top, very flat; flesh sweet and crisp. Recommended for early spring planting.

## TURNIP — Continued

**EXTRA EARLY WHITE MILAN****40 Days**

Tops small and upright; roots 3 inches, pure white, very flat; flesh sweet and crisp. Used for forcing or early spring planting outdoors. Very early.

**LARGE WHITE NORFOLK****75 Days**

Large and heavy roots, white, 4 to 6 inches, globe-shaped. late. Used mostly for stock feeding.

**POMERANEAN OR LARGE WHITE GLOBE****75 Days**

This is one of the most productive kinds and in good, rich soil roots will frequently grow to 10 pounds in weight. It is of perfect globe shape; skin white and smooth; leaves large and dark green.

**PURPLE TOP STRAP LEAF****45 Days**

Tops medium large, upright, strap leaved. Roots 3 to 4 inches, flat, white with purple top. Flesh white, fine grained and sweet. Early variety.

**PURPLE TOP WHITE GLOBE****60 Days**

An early, perfectly globe-shaped variety of good size and very attractive appearance. The roots are large, white with purple top. The flesh is white, fine grained and tender. They are best for table when about 3 inches in diameter but can be grown much larger for stock feeding. Best variety for market gardeners.

**SEVEN TOP FOR TURNIP GREEN**

Standard, extremely hardy foliage turnip for table and forage use. Root woody and inedible; crown sends up numerous leafy shoots which are excellent for greens and for stock to graze on.

**SHOGGIN OR JAPANESE FOLIAGE**

Very popular in the south. Quick growing. Tops 18 to 20 inches tall, bright green, strap leaved; roots globular, smooth, white and of excellent quality. Louse proof.

**SOUTHERN PRIZE**

Foliage type with tops much like Seven Top and used for same purpose. Makes a large, top-shaped root of poor quality.

**WHITE EGG****50 Days**

Top medium size, upright; roots white, egg-shaped with small tap root, 2½ to 3 inches. Good home garden variety.

**WHITE FLAT DUTCH, STRAP LEAF****42 Days**

Tops small, light green, strap leaved; roots white, 3 to 4 inches, flat, fine grained and sweet. Excellent for early planting.

**YELLOW ABERDEEN, PURPLE TOP****75 Days**

Very hardy and productive, a good keeper; globe-shaped. Color pale yellow with purple top. Very firm in texture and closely resembling the Rutabaga in good keeping qualities. Good either for table or stock.

**YELLOW GLOBE****75 Days**

Tops large, upright; roots 4 to 5 inches, globe-shaped, pale yellow; flesh firm, pale yellow.

## RUTABAGA

**CULTURE.** Rutabaga, or Swedish Turnip, with their superior keeping qualities, had best be drilled a month earlier than other turnips, given 18 to 30-inch rows and thinned to stand six to twelve inches apart in the row.

### AMERICAN PURPLE TOP, IMPROVED

90 Days

Tops large, upright; roots 5 to 6 inches, yellow with purple top; flesh pale yellow, fine grained, sweet and tender.

### BANGHOLM

90 Days

Of large size, small neck, few or no side roots. Yields well. Flesh yellow, sweet and solid; skin yellow with purple top.

### MONARCH OR TANKARD

90 Days

This is a yellow fleshed sort having very large tankard-shaped roots with relatively small necks and tops. Color purplish-crimson above ground, yellow below; flesh fine grained, very solid and of the best flavor.

### SWEET GERMAN

90 Days

Roots 4 to 5 inches, white with green tinted top, globe-shaped; flesh pure white, fine grained and sweet. Good for table use or stock feed.

## ONION SETS

We have grown Onion Sets for over 50 years and the knowledge gained in growing, storing, grading and shipping over this length of time assures our customers a superior product.

### JAPANESE OR EBENEZER

A yellow variety of great merit. A heavy yielder and good keeping Onion. Does not run to seed readily.

### YELLOW

Grown from seed of Strasburg or Yellow Danvers, either of which we can furnish. Yellow is the standard color for onions in many of the largest markets.

### RED

Grown from the Red Wethersfield variety and will produce marketable onions several weeks earlier than seed. Also very desirable for green onions.

### WHITE

Grown from White Portugal seed. White sets produce the finest early green onions and no garden should be without them.

### BROWN

Grown from Australian Brown seed. Excellent keepers as Sets. Are very hard and solid.

### WHITE PEARL

This is the early waxy silvery white Onion which is used for fall planting only. It produces an onion that in mildness of flavor is probably not surpassed. For fall planting only.

### BERMUDA

These sets produce the pale yellow, slightly flattened Onion, with white flesh, at times slightly suffused with pink. For fall planting only.

### CRYSTAL WHITE WAX

Produces large pure white flattened Onion of mild flavor. For fall planting only.

### YELLOW SHALLOTS OR MULTIPLIERS

The clumps are divided and they multiply very abundantly. Are grown largely for flavoring.

### YELLOW POTATO

The old original English Multiplier.

### WINTER TOP, EGYPTIAN OR PERENNIAL

These are very hardy; they need no protection during the winter and will continue for many years to yield an abundant supply of green onions without replanting.



# REFERENCE TABLES

Quantity of Seeds Requisite to Produce a Given  
Number of Plants and Sow an Acre

	Quantity per Acre
Artichoke, 1 oz. to 500 plants.....	6 oz.
Asparagus, 1 oz. to 800 plants.....	4 lbs.
Asparagus Roots .....	1000 to 7250
Barley .....	2 bu.
Beans, Dwarf, 1 lb. to 100 ft. of drill.....	1 bu.
Beans, Pole, ½ lb. to 100 hills.....	½ bu.
Beet, Garden, 1 oz. to 100 ft. of drill.....	7 lbs.
Beet, Mangel, 1 oz. to 100 ft. of drill.....	5 lbs.
Broccoli, 1 oz. to 5000 plants.....	2 oz.
Brussels Sprouts, 1 oz. to 5000 plants.....	3 oz.
Buckwheat .....	1 bu.
Cabbage, 1 oz. to 4000 plants.....	2 oz.
Carrot, 1 oz. to 100 ft. of drill.....	3 to 4 lbs.
Cauliflower, 1 oz. to 2500 plants.....	4 to 6 oz.
Celery, 1 oz. to 6000 plants.....	4 oz.
Chicory .....	4 lbs.
Clover, Alsike and White Dutch.....	6 lbs.
Clover, Crimson .....	10 to 15 lbs.
Clover, Large Red and Medium.....	8 to 12 lbs.
Collards, 1 oz. to 5000 plants.....	4 oz.
Corn, Sweet, ¼ pint to 100 hills.....	7 to 10 lbs.
Cress, ¾ oz. to 100 ft. of drill.....	12 lbs.
Cucumber, 1 oz. to 100 hills.....	1 to 3 lbs.
Egg Plant, 1 oz. to 2000 plants.....	4 oz.
Endive, 1 oz. to 100 ft. of drill.....	3 to 5 lbs.
Grass, Blue, Kentucky.....	30 to 40 lbs.
Grass, Hungarian and Millet .....	25 lbs.
Grass, Mixed Lawn.....	100 lbs.
Grass, Red Top, Fancy, Clean.....	8 to 10 lbs.
Grass, Timothy .....	10 lbs.
Grass, Orchard, Perennial Rye and Wood Meadow.....	2 bu.
Hemp .....	½ bu.
Horse-Radish Roots .....	10,000 to 15,000
Kale, 1 oz. to 5,000 plants .....	4 lbs.
Kohl-Rabi, 1/3 oz. to 100 ft. of drill.....	4 lbs.
Leek, 1 oz. to 100 ft. of drill.....	4 lbs.
Lettuce, ¼ oz. to 100 ft. of drill.....	3 lbs.
Melon, Musk, 1 oz. to 100 hills.....	3 lbs.
Melon, Water, 4 oz. to 100 hills .....	3 lbs.
Nasturtium, 2 oz. to 100 ft. of drill.....	15 lbs.
Okra, 2 oz. to 100 ft. of drill.....	10 lbs.
Onion Seed, 1/3 oz. to 100 ft. of drill.....	4 to 5 lbs.
Onion Seed for sets.....	40 to 80 lbs.
Onion Sets, 1 qt. to 40 ft. of drill.....	8 bu.
Parsnip, ½ oz. to 100 ft. of drill.....	3 lbs.
Parsley, ¼ oz. to 100 ft. of drill.....	3 lbs.
Peas, Garden, 1 lb. to 100 ft. of drill.....	1 to 3 bu.
Peas, Field .....	2 bu.
Pepper, 1 oz. to 1500 plants.....	4 oz.
Pumpkin. 4 oz. to 100 hills.....	3 to 4 lbs.
Radish, 2/3 oz. to 100 ft. of drill.....	8 to 12 lbs.
Rye .....	1½ bu.
Salsify, ¾ oz. to 100 ft. of drill.....	8 lbs.
Spinach, 1 oz. to 100 ft. of drill.....	10 to 15 lbs.
Summer Savory .....	¾ lb.
Sunflower .....	8 lbs.
Squash, Summer, 4 oz. to 100 hills.....	2 lbs.
Squash, Winter, 8 oz. to 100 hills.....	2 lbs.
Tomato, 1 oz. to 2000 plants.....	2 oz.
Tobacco, 1 oz. to 5000 plants.....	2 oz.
Turnip, 1 oz. to 100 ft. of drill.....	2 lbs.
Vetch .....	2 bu.



# REFERENCE TABLES

## MEASUREMENT OF AN ACRE

The following will be found useful in arriving at accuracy in estimating the amount of land in different pieces of ground under cultivation: 5 yards wide by 968 yards long contains 1 acre, as do also the following measurements: 10 yards wide by 484 yards long; 20 yards wide by 242 yards long; 40 yards wide by 121 yards long; 70 yards wide by 69½ yards long; 60 feet wide by 726 feet long; 110 feet wide by 396 feet long; 120 feet wide by 363 feet long; 220 feet wide by 198 feet long; 240 feet wide by 181½ feet long, and 440 feet wide by 99 feet long.

## NUMBER OF PLANTS OR TREES TO THE ACRE AT GIVEN DISTANCES

Dis. Apart	No. Plants	Dis. Apart	No. Plants
12x 1 in. ....	522,720	36x36 in. ....	4,480
12x 3 in. ....	174,240	42x12 in. ....	12,446
12x12 in. ....	43,560	42x24 in. ....	6,223
16x 1 in. ....	392,040	42x36 in. ....	4,148
18x 1 in. ....	348,480	48x12 in. ....	10,890
18x 3 in. ....	116,160	48x18 in. ....	7,790
18x12 in. ....	29,040	48x24 in. ....	5,445
18x18 in. ....	19,360	48x30 in. ....	4,356
20x 1 in. ....	313,635	48x36 in. ....	3,630
20x20 in. ....	15,681	48x48 in. ....	2,723
24x 1 in. ....	261,360	60x36 in. ....	2,901
24x18 in. ....	15,520	60x48 in. ....	2,178
24x24 in. ....	10,890	60x60 in. ....	1,743
30x 1 in. ....	209,088	8x 1 ft. ....	5,445
30x 6 in. ....	34,848	8x 3 ft. ....	1,815
30x12 in. ....	17,424	8x 8 ft. ....	680
30x16 in. ....	13,068	10x 1 ft. ....	4,356
30x20 in. ....	10,454	10x 6 ft. ....	726
30x24 in. ....	8,712	10x10 ft. ....	435
30x30 in. ....	6,970	12x 1 ft. ....	3,630
36x 3 in. ....	58,080	12x 5 ft. ....	736
36x12 in. ....	14,520	12x12 ft. ....	302
36x18 in. ....	9,680	16x 1 ft. ....	2,722
36x24 in. ....	7,260	16x16 ft. ....	170



160 ACRE FARM DEVOTED TO PEA SEED BREEDING

## IOWEALTH HYBRID CORN

Iowealth hybrid corn is one of the finest hybrids produced today. Its record throughout the corn belt, and even in most of the marginal corn land in the United States, is outstanding. Farmers continually report 10 to 20 bushels per acre greater yield than from their own corn, and in drouth areas the difference is often wider still. Iowealth has an extremely large root system, dark green, glossy leaves, a very stiff stalk, and excellent quality kernels. It is available in maturities for any section of the United States and for some parts of Canada. Many types are produced to satisfy the various demands in different parts of the country. A special cold resistant type is also available for farmers who wish to plant their corn very early without danger of poor germination.

## COLUMBIA HYBRID CORN

"COLUMBIA" is the registered brand name under which a series of Wisconsin hybrids are grown and marketed in Wisconsin by the MICHAEL-LEONARD SEED COMPANY.

COLUMBIA HYBRIDS are grown strictly on land leased by the MICHAEL-LEONARD SEED COMPANY and every step of the production is closely checked by experienced men.

COLUMBIA HYBRIDS are processed in the MICHAEL-LEONARD'S MODERN PLANT at COLUMBUS, WISCONSIN. We believe this plant to be the most modern hybrid corn processing plant in the state of Wisconsin. This assures you uniform germination and grading. Uniform germination and grading assures you a uniform stand of corn.

Maturities of COLUMBIA HYBRID CORN range from 85 to 120 days.





